

T H E

L I T E R A R Y A N D B I O G R A P H I C A L

M A G A Z I N E,

A N D

B R I T I S H R E V I E W,

F o r S E P T E M B E R, 1793.

M E M O I R S O F M. D' A L E M B E R T.

W I T H A N E L E G A N T P O R T R A I T.

J O H N L E R E N D D' A L E M B E R T was born at Paris the 16th of November, 1717. He was one of those early geniuses who shew what they will be hereafter, long before they attain to maturity of years. At the age of ten, his schoolmaster declared he had nothing further to teach him, and that he should be put to college. He was then placed at the Mazarine college, where he completed his studies with the greatest eclat. Here he shewed the strongest predilection for the sciences of philosophy and mathematics. To aid his fortune, his friends induced him to apply to the study of law or physic, but he soon returned to his favourite and predominant studies.

At an early age, he gained the prize proposed by the academy of Berlin for the best treatise on *The general cause of winds*. The academy, fully satisfied with the work, were not content with crowning the author; he was elected an academician

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without scrutiny, by acclamation. At the same time, the king of Prussia, having gained three battles over the Austrians, and terminated his campaign by a glorious peace, our author took this opportunity to dedicate his work to that monarch, by the following verses:

*Hæc ego de Ventis, dum ventorum æcor
 alis
Palantes agit Austriacos Fredericus et orbi
Insignis lauro, ramum prætendit olivæ.*

Flattered with this dedication, Frederic thanked him in an obliging letter, assigned him a pension of 1200 livres, and offered him the place of president of the academy of Berlin, formerly filled by Maupertius. But the French philosopher refused it, from an attachment to his friends and country, and from a consideration that a man of letters, who is honoured in his own country, seldom gains any thing by removing. D'Alembert was, in fact, looked upon in France as one of

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their

their first writers. He was indebted for this reputation to his *Preliminary Discourse* to the Encyclopedia. This work, of which so much good, and so much ill, has been spoken, was undertaken in 1750, in conjunction with his friend Didero, and a number of learned men. He undertook the introduction of this great work, and instead of a collection of common-place remarks, with which authors of an inferior rank ornament their prefaces, he presented the world with an eloquent discourse, in which were united strength and elegance, knowledge and entertainment, powerful reasoning, and a fine style. The genealogy he there introduces of human knowledge, is superior to any thing hitherto produced; and the equity which directs his opinions on those philosophers who have contributed to the perfection of science, is worthy of an impartial philosopher. The articles in mathematics with which he has enriched the work, and some articles in history and belles lettres, have not been less applauded. If every part had been executed in the same style, this dictionary would not have had to encounter so much criticism and persecution. What has gained him in a more especial manner the praise of Voltaire and other authors of taste, is his style, which is always agreeable to the subject. D'Alembert reaped the fruits of the esteem he had inspired. In a journey he made to Wesel, where he was invited by the king of Prussia after the peace in 1763, that prince tenderly received and embraced him. The first question he put to him was—*Do mathematics furnish any method for calculating the probability of politics?* D'Alembert's answer was a pleasing compliment to the monarch. *That he knew of no such method; but if he did, it would be useless to his majesty.*

The empress of Russia, equally sensible to the merits of our philosopher, had about the end of the preceding year, proposed to him to undertake the education of the grand

duke of Russia, her son, and she had fixed the salary at one hundred thousand livres, and considerable advantages. D'Alembert although pleased with the honour of the offer, declined so delicate and important an employment. The empress insisted and pressed him again by a letter written with her own hand, but her second attempt was equally unsuccessful.

These marks of consideration, a continued and regular correspondence with Voltaire, and the king of Prussia, his connections with many persons highly distinguished by their rank, and particularly those celebrated foreigners who visited Paris, his influence in the academy of sciences, and in the French academy of which he was secretary, after the death of Duclos, all conspired to make D'Alembert perform a part truly important. His enemies called him the *Magazine of Literature*, but the love of truth, a zeal for the progress of the sciences, and for the defence of the rights of man, formed the ground-work of his character. An exact probity, a noble disinterestedness, free from ostentation, and an enlightened benevolence, were his most conspicuous virtues. The pleasure of obliging he seemed carefully to seek after. If any young man betrayed any talents for science and literature, he found in him a support and a guide, nor could this be checked by the ingratitude of some individuals. A firm and courageous friend, he knew how to defend those philosophers who were persecuted, and that like a man who wished for no favour, and despised malignity. We may even reproach him with having too much favoured the attacks of Voltaire on religion and its defenders, and to have contributed, perhaps unintentionally, in shaking good principles, and in the corruption of manners.

His conversation was instructive, and sometimes witty. Many *bons mots* are attributed to him. But his humour was never offensive. Abandoned,

done, almost from his infancy, to a woman who nursed and took care of him until he was four years old, he ever after preserved towards her the sensibility and gratitude of a son. At his leaving college he took up his residence again with her, and remained there nearly thirty years; nor did he quit her till 1765, when after a long illness, his physician represented to him the necessity of seeking a more healthy situation. The same principles of gratitude induced him to dedicate his works to two disgraced ministers, the Count D'Argenson, to whom he was indebted for the pension of 1200 livres, which the king granted him in 1756, and the Marquis D'Argenson his brother. This celebrated author was in the full strength of his genius when he died in 1783.

In the first year of his studies, he composed a commentary on St. Paul's epistle to the Romans. The Janse-nists from this, hoped to find M. D'Alembert a second Pascal. But his attachment to the mathematics disappointed their hopes. His works are,

I. Literary, Historical, and Philosophical Miscellanies, 6 vol. 12mo. This work has been many times reprinted, and although its contents

appear above the reach of the generality of readers, yet he has had the art to make it 'useful to all; it contains the preliminary discourse on the Encyclopedia. An essay on Men of Letters, five Eloges, of Bernoulli, Teraffon, Montesquieu, Mallet, and Desmarfais. The Memoirs of Cristina, a translation of different parts of Tacitus, Elements of Philosophy, and dissertations on various subjects.

II. Elements of Music, theoretical and practical.

III. On the Destruction of the Jesuits in 1765.

IV. Eloges read at the sitting of the French academy 1779.

V. Treatise on Dynamics.

VI. Treatise on the Equilibrium and Motion of Fluids.

VII. Reflections on the General Causes of Winds.

VIII. Reflections on the Procession of the Equinoxes.

IX. Essay on the New Theory of the Resistance of Fluids.

X. Enquiries into various important Points of the System of the World.

XI. Nova Tabula Lunarium Emendatio.

XII. Opusculs Mathematiques for 1761, and the following year.

B I O G R A P H I A N A;

OR, ANECDOTES OF ILLUSTRIOUS PERSONS.

NUMBER XVIII.

LULLY.

THIS celebrated musician being at the point of death, was ordered by his confessor to deliver up to him to be burnt the last opera he composed. This he did with great reluctance; his son, however, who was present when the priest was gone away, burst into loud lamentations at the fate of the piece. Lully, however, said in a low voice to his son, "Hold your tongue, you rogue, my copyist has another copy of it."

Sir ISAAC NEWTON.

This great philosopher lost thirty thousand pounds in the celebrated South Sea year of 1720. He did not, however, much like to hear of this, no more than of a loss of Bank notes, to the amount of two thousand pounds, which were taken out of his pocket by his valet de chambre. Sir Isaac was no less distinguished for his modesty than for his diligence. All that he was able to tell the world, he said, was owing not

to any superior talents, but to his patient thinking. His chronology of ancient kingdoms, his last, and most certainly not his best work, at a very advanced period of life, had been written over by him in his own hand-writing seven or eight times. Fontenelle concludes his celebrated eulogium upon Sir Isaac by asserting, that he was not distinguished from other men by any singularity whatsoever. Dr. Johnson used to say that some baronet told him, that Sir Isaac was in early life a most clamorous infidel; but that on examining the evidences of Christianity with attention, he became a very firm believer. Sir Isaac, when in London, lived in the house in St. Martin's-street, Leicester-fields, which was lately occupied by the ingenious author of the History of Music, Dr. Burney. It is now occupied for that elegant and useful institution, the Westminster Library.

St. VINCENT de PAUL.

In our admiration of the exertions of the men of humanity of our time, we appear to have forgotten what this excellent priest did in the last century in France. Having once seen a young man in the galleys of Marseilles, who appeared inconsolable at being separated from his wife and children, he offered himself to become a prisoner in his stead, and his offer was accepted. He instituted a founding hospital for Paris. Many of the principal hospitals of Paris owe their establishments to him. He instituted several seminaries for the education of clergymen, and several missions for the conversion of the infidels. Early in life he was taken prisoner by an Algerine corsair; he, however, converted his captain. Exhausted with fatigues, both of body and mind, he died in 1668, at the age of 85. He was canonized by Benedict XIII. in 1737; and, had every saint at present in the Roman Calendar an equal claim to that distinction, who

could wish to take away from the popes their power of canonization. The life of this excellent and extraordinary man is written in two volumes, quarto, by M. Collet, one of his pupils, and is a very curious piece of biography, but rather prolix.

Cardinal de POLIGNAC.

Of our celebrated Mr. Burke, Goldsmith said,

Who, born for the universe, narrowed his mind,
And to party gave up what was meant for mankind.

In the history of the minority of Louis XV. of France, by that eloquent prelate M. Maffellon, lately published, having praised the many and the great talents of M. de Polignac, he adds, "Il n'y a a la cour; de gens vraiment forts, que ceux qui ne se partialisent point. Tous les partis les craignent, & les recherchent. Si le Cardinal de Polignac avoit su tenir ce juste milieu, il eut joué le plus grand personnage, au lieu qu'il n'a fait que le chemin que d'autres avant lui avoient fait avec moins de talens."—"There are no people at court, who have any strong interest, but those who do not attach themselves to party. These, all parties fear and court. If Cardinal de Polignac had known how to steer this just medium, he would have been a man of the first consequence; instead of which, he has only followed the path pointed out to him by others of less talents."

The Cardinal was a man of such infinite address in conversation, that Louis XIV. who did not much like contradiction, said of him when he was very young, "Je viens d'entretenir un homme & un jeune homme, qui m'a toujours contredit & qui m'a toujours plu." According to the Dictionnaire Historique, Caen, nine volumes, 8vo. (a book which cannot be too much recommended to persons of any curiosity respecting literature and biography) when the deputies from Holland, at the conference of Gertruydenburgh, in 1709, offered

offered this dejected and humiliated monarch, Louis XIV. terms too degrading for him to accept of, he replied, "Gentlemen, I find that you talk like persons not accustomed to be conquerors." The Cardinal's Latin poem of Anti-Lucretius has had the fate of most didactic poems. It is now nearly forgotten, and what may have accelerated its oblivion, perhaps in spite of the many fine tirades with which it abounds, is, that the philosophy of it, is that of Des Cartes. Newton's philosophy was put into Latin verse not many years ago, by Benedict Stey, a German monk. It is, however, very little known.

Marshal CATINAT,

Was called by his soldiers, *Père la Pénée*, from his extreme care of them in every situation, and his extreme solicitude for their welfare. He died at a very advanced age, at his chateau near Paris, after having received the sacrament according to the rites of the catholic church; and the last words he was heard to articulate were, "*Mon Dieu, j'ai confiance en vous.*" He was extremely simple in his dress and in his behaviour. Simplicity, indeed, united with the greatest virtues and the greatest talents, formed the basis of his character. Madame de Coulanges says of him, in one of her letters, "Nous ne passons pas un jour sans le voir. Je l'ai trouvé seul toujours au bout d'une de nos allées. Il y est, sans épée. Il semble qu'il ne croit pas en avoir jamais porté." In the life of this great general, and of his countryman Marshal Turenne, the imagination appears transported into other countries, and into other times; and even supposes itself occupied about a Greek or a Roman hero.

Marshal HUXELLES,

One of the few French ministers of whom Lord Bolingbrooke, in his letters to Sir George Littleton, speaks well, was an old bachelor. When one of the court ladies one

day asked him why he had never been married, he replied, "Madam, because I have never yet seen the woman that I could wish to have for my wife, nor the man I could wish to have for my son."

St. FRANÇOIS DE SALES,

One of the latest of the modern saints; but, as a lady well observed of him, a most gentlemanlike saint. He preferred his own miserable bishopric of Geneva to that of Paris, which Henry the Fourth offered him. This excellent prelate was a model of humility, charity, and piety. The Abbé Marfolier has written a very entertaining life of him, in two volumes, 12mo.; and the *Esprit de St. François de Sales*, 8vo. contains the summary of his maxims and doctrine, very well compiled. To some ecclesiastic of his diocese, who was brought before him as a person of vicious and irregular life, and who had fallen on his knees before him to beg pardon for the scandal he had given; the prelate replied, falling also on his knees before him, "Je vous demande que vous avez pitié de moi & de tous tant que nous sommes ecclésiastiques en ce diocèse, de l'Eglise & de toute la religion que vous ruinez d'honneur par votre vie scandaleuse, qui donne lieu a nos adversaires de blasphemer notre sainte foi." This speech (adds the author of this anecdote) made such an impression upon the culprit, that he took up a new way of life, and became a model of piety and virtue.

LEIBNITZ.

This celebrated philosopher used to say, "On ne doit point trop lire, ni trop voyager, si l'on ne veut pas faire de son esprit une pièce de Marqueterie." When a pedant one day asked a celebrated Irish bishop if he had kept up his Greek, he replied, "Sir, I have done with Greek and gingerbread a great while ago, I hope."

VOLTAIRE.

A principal actor in the scenes mentioned in Voltaire's history of Charles the Twelfth, saw the author soon after the publication of his history, and asked him why he did not apply to him for some information, which he would very willingly have given him, Voltaire replied, "Monseigneur s'il y a des erreurs dans mon livre, vous conviendrez au moins qu'il est bien écrit, & qu'il n'y a point d'histoire qu'on ne puisse accuser d'inexactitude." The late Dr. Johnson used to say, that the history of Charles the Twelfth by Voltaire, was one of the first pieces of historical writing in any language.

GODEAU,

Bishop of Gap, in one of his poems, speaking of the art of medicine, says,

Cet art qui fait le meurtre avec impunité
Et d'ont notre foiblesse accroit l'autorité.

The art of physic with a licence kills,
And keeps its empire by our fancied ills."

FONTENELLE

Was a man much liked in society. He was a man of pleasantry, and at the same time a man of great indifference. A lady one day asked Montesquieu, how Fontenelle came to be so well received in company, C'est parce qu'il n'aime personne, was his answer; because he had no strong attachments. Some one asked Fontenelle one day, if he had ever written any epigrams; "Yes, said he, I have had the folly to write many, but I never had the malignity to publish one." The regent asked Fontenelle one day, what he was in general to think of the different verses that were addressed to him: "Sir, replied he, that they are good for nothing, and ninety-nine times in a hundred you will think rightly."

S C R A P I A N A.

NUMBER IV.

WHAT would the admirers of Lavater say to this passage in the Macbeth of that master of human nature, Shakespeare?

There's no art
Can find the mind's construction in the face.

Hooker says prettily of that excellent young prince, our Edward the Sixth, the *humani generis delicia*, "He died soon, but lived long, for life consists in action." And his life consisted of the purest and the most benevolent series of actions, that ever adorned the life of any man. The celebrated Cardan (who had held several conversations with him) wrote these lines for his epitaph.—

Plate nefas magnum sed toto flebitis orbe
Mortales. Vester corrui omnis honos.
Nam Regum decus, Juvenum flos, ipseque
Bonorum

Delicia scecli, & gloria gentis erat.

Dignus Apolloniis lachrymis doctæque
Minervæ
Flosculus (heu misero!) concedet ante
diem.

Te tumulo dabimus Musæ, supremæque
Plentes
Numera Melpomenes tristitia fata canent.

Lord Bacon, in speaking of the composition of sermons, says very beautifully, "Wines, which at the first treading run gently, are pleasanter than those which are forced by the wine-press, for these taste no less of the husk and stone, than of the grape; so those doctrines are exceedingly wholesome and pleasant, which flow from the scriptures, gently pressed, and are not wrested into controversies and common places."

Who would expect to find in the sermons of one of our divines the following passage, on the danger of early quarrels between man and wife? "Man and wife, says Jeremy Taylor,

Taylor, are equally concerned to avoid all offences to each other, at the beginning of their conversation. Every thing can blast an infant blossom, and the breath of the south can shake the little rings of the vine, when first they begin to curl like the locks of a new-weaned boy; but when by age and consolidation they stiffen into the hardnesses of a stem, and have, by the warm embraces of the sun, and the kisses of heaven, brought forth their clusters, they can endure the storms of the north, and the loud noises of the tempest, and yet never be broken. So is the early union of an unforced marriage, watchful and observant, jealous and busy, inquisitive and careful, and apt to take alarm at every unkind word."—

Jeremy Taylor has been called the Shakespear of our English divines. The succeeding passage may well entitle him to the appellation of the Fletcher, likewise of that distinguished fraternity. Can any thing be more elegant, or more tender, and more abundant in imagery, than it is? His comparison between a married and a single life, in the same sermon, that on the blessedness of the marriage-ring, is equally beautiful. "Marriage, says the bishop, was ordained by God himself, instituted in Paradise, was the relief of natural necessity, and the first blessing from the Lord; he gave to man, not a friend, but a wife (that is, a friend and a wife too). It is the seminary of the church, and daily brings forth sons and daughters unto God; it was ministered to by angels, and Raphael waited upon a young man, that he might have a blessed marriage, and that that marriage might repair two sad families, and bless all their relations. Marriage is the mother of the world, and preserves kingdoms and fills cities, churches, and even heaven itself. Celibacy, like the fly in the heart of an apple, dwells in a perpetual sweetness; but sits alone, and is confined and dies in singu-

larity: but marriage, like the useful bee, builds a house, and gathers sweetness from every flower; and labours and unites into societies and republics, and sends out colonies, and feeds the world with delicacies; and keeps order and exercises many virtues, and promotes the interest of mankind; and is that state of good things, to which God hath designed the present constitution of the world. Marriage hath in it the labour of love, and the delicacies of friendship; the blessings of society, and the union of hands and hearts. It hath in it less of beauty, but more of safety than a single life; it is more merry and more sad, is fuller of joys, and fuller of sorrow; it lies under more burthens, but is supported by all the strength of love and charity, and these burthens are delightful."

Pomponacius was supposed to be a speculative atheist. The epitaph that he composed for himself is a singularly impudent one.

Hic sepultus jaceo.
Quarè? Nescio
Si vales. Benè est.
Vivens valui.
Fortasse nunc valeo.
Si, aut non, dicere nequeo.

The following motto was given by a learned physician for the achievement of the late Dr. James, author of the fever powder:

Pulvis & umbra sumus.

Great James himself by death is made,
Chiefly a powder and a shade.

The following epigram upon a beautiful coquette is very pretty:

Te Rex astrorum, quoque te, Regina gubernat,
In vultu Sol, in pectore Luna valet.

No less than Sol, the Moon my fair one guides,
One o'er her face, one o'er her breast presides.

Dr. Johnson had very masterly ideas of education; and said to some mother, who was carping about the different professions, "My good lady,

dy, never think it clever to call physics a mean study, or law a dry one; nor ask a baby of seven years old what way his genius leads him; when we all know that a boy of that age has no genius for any thing except a peg top and an apple pyc; but fix on

some business, where money is to be got, and little virtue to be required; let him follow that business speedily, and not let him live as Roger Ascham says the *wits do*. men know not how, and at last die obscurely, men know not where."

OBSERVATIONS CONCERNING THE VELOCITY OF LIGHT.

BY JOSEPH PRIESTLEY, LL.D. F.R.S.

DR. BRADLEY, astronomer royal, and his friend Mr. Molyneux, thinking to verify some observations of Dr. Hooke, concerning the parallax of the fixed stars, observed the star γ . Draconis, at Kew, on the 20th of December 1725, and found that it appeared more southerly than it had done at the beginning of the same month and the month preceding. This surprised them, and the more so, as it was the contrary way from what it would have been, had it proceeded from an annual parallax. But being pretty well satisfied that it could not be entirely owing to the want of exactness in the observations, and having no notion of any thing else that could cause such an apparent motion as this in the star, they began to think that some change in the materials, &c. of the instrument itself might have occasioned it. In this persuasion they remained some time; but being at length fully convinced, by several trials, of the great exactness of the instrument; and finding, by the gradual increase of the distance of the star from the pole, that there must be some regular cause that produced it, they took care to examine nicely, at the time of each observation, how much it was; and, after several observations for that purpose, the first hypothesis that occurred to them was, that it was occasioned by the nutation of the earth's axis; but this was soon found to be insufficient. They also found that it did not depend upon any variety of the seasons of the year,

meaning probably the variations of the state of the atmosphere; and comparing their observations upon two stars together, it appeared that the apparent differences of declination from the maxima were always nearly proportional to the versed sine of the sun's distance from the equinoctial points. This was an inducement to think that the cause, whatever it was, had some relation to the situation of the sun with respect to those points. But not being able to frame any hypothesis, at that time, sufficient to solve all the phenomena, and being very desirous to search a little farther into this matter, Dr. Bradley began to think of erecting an instrument for himself at Wansted; that, having it always at hand, he might, with the more ease and certainty, enquire into the laws of this new motion.

He had not been long in observing, before he perceived that the notion he had before entertained, of the stars being farthest north and south, when the sun was about the equinoxes, was only true of those that were near the solstitial colure; and after he had continued his observations a few months, he discovered what he then apprehended to be a general law, observed by all the stars, viz. that each of them became stationary, or was farthest north or south when they passed over his zenith, at six of the clock, either in the morning or the evening. He perceived, likewise, that whatever situation the stars were in, with respect to the cardinal points of the ecliptic, the apparent motion

of every one tended the same way, when they passed his instrument about the same hour of the day or night; for they all moved southward while they passed in the day, and northward in the night; so that each was farthest north, when it came about six of the clock in the evening, and farthest south when it came about six in the morning.

Examining the matter more particularly, he found that the greatest alteration of declination in these stars was as the sine of the latitude of each respectively. This made him suspect that there might be the like proportion between the maxima of other stars; but finding that the observations of some of them would not perfectly correspond with such an hypothesis, and not knowing whether the small difference he met with might not be owing to the uncertainty and error of the observations, he deferred the farther examination into the truth of this hypothesis, till he should be furnished with a series of observations, made in all parts of the year; which might enable him not only to determine what errors the observations were liable to, or how far they might be safely depended upon, but also to judge whether there had been any sensible change in the parts of the instrument itself.

Upon these considerations he laid aside all thoughts at that time about the cause of the fore-mentioned phenomena; hoping that he should the more easily discover it, when he was better provided with proper means to determine more precisely what they were.

When the year was completed, he began to examine and compare his observations; and having pretty well satisfied himself as to the general laws of the phenomena, he endeavoured to find out the cause of them. He was already convinced that the apparent motion of the stars was not owing to a nutation of the earth's axis. The next thing that offered itself was an alteration

in the direction of the plumb line with which the instrument was constantly rectified, but this, upon trial, proved insufficient. Then he considered what refraction might do, but here also nothing satisfactory occurred. At last he conjectured that all the phenomena hitherto mentioned proceeded from the progressive motion of light, and the earth's annual motion in its orbit. For he perceived that if light was propagated in time, the apparent place of a fixed object would not be the same when the eye is at rest, as when it is moving in any other direction than that of the line passing through the eye and the object, and that when the eye is moving in different directions, the apparent place of the object would be different.

He then shews, that if the earth revolve round the sun annually, and the velocity of light be to the velocity of the earth's motion in its orbit, as one thousand to one, that a star really placed in the very pole of the ecliptic would, to an eye carried along with the earth, seem to change its place continually; and neglecting the small difference on the account of the earth's diurnal revolution on its axis, would seem to describe a circle round that pole every way distant from it $3\frac{1}{2}$; so that its longitude would be varied through all the points of the ecliptic every year, but its latitude would always remain the same. Its right ascension would also change, and its declination, according to the different situation of the sun with respect to the equinoctial points, and its apparent distance from the north pole of the equator, would be 7' less at the autumnal than at the vernal equinox.

The greatest alteration of the place of a star in the pole of the ecliptic, or which in effect, amounts to the same thing, the proportion between the velocity of light and the earth's motion in its orbit being known, it will not be difficult, he observes, to find what would be

the difference, upon this account, between the true and apparent place of any other star at any time; and on the contrary, the difference between the true and apparent place being given, the proportion between the velocity of light and the earth's motion in its orbit may be found.

These different methods thus agreeing in the result, he thought he might reasonably conclude, not only that these phænomena are owing to the causes to which he had ascribed them, but also that, in the same medium, light is propagated with the same velocity after it has been reflected as before. For this will be the consequence, if it be allowed that the light of the sun is propagated with the same velocity before it is reflected as the light of the fixed stars; which will hardly be questioned, if it can be made to appear that the velocity of the light of all the fixed stars is equal, and that their light moves through equal spaces in equal times, at all distances from them; and both these he thought were sufficiently proved from the apparent alteration of the declination of stars of different lustre; for that is not sensibly different in such stars as seem near together, though they appear of very different magnitudes. Whatever their situations were, he found that, according to the foregoing hypothesis, the velocity of light from stars of the fifth or sixth magnitude, was the same as from those of the second or third, which in all probability, are placed at very different distances from us.

Mr. Melville thought it probable, that differently coloured rays might be affected with different velocities at their emission from the luminous body, and that this hypothesis was on several accounts, preferable to Newton's supposition, that they are particles of different sizes or densities. Their different refrangibility, he observes, will be the very same upon this hypothesis, and their different velocities will be nearly as the sines of refraction out of air into glass, beginning from the ex-

treme red and ending with the extreme violet, viz. as 78000, 77873, 77797, 77663, 77496, 77330, 77200, the sine of incidence being 120120.

This hypothesis he thought most agreeable to Newton's supposition of the fits of easy reflection and transmission being occasioned by the pulses of the medium through which they pass, as these pulses would overtake rays, moving with different velocities, at different times.

To the objection that the different sensations excited in the mind cannot arise from the different force of the particles of light, since the colour of homogeneous rays is not altered by passing through different mediums, though their velocity be thereby always increased or diminished, he replies that every ray, as it must at last pass through the humours of the eye, in order to vision, falls upon the retina with one given velocity, whatever number of refractions it has previously undergone; since the velocity of any ray in any one medium is to its velocity in any other medium, in a constant and invariable proportion.

Lastly, this gentleman proposes a trial of his hypothesis by an experiment; for since, according to this supposition, the time which the extreme violet rays take to move through any space are to that which the red takes as 78 to 77; the last violet light which a satellite reflects before its total immersion into the shadow of Jupiter ought to affect the eye 32 seconds after the red light, reflected at the same time, is gone; and at the emergence, there would be a contrary succession of colours, beginning with red, and ending with white; and the difference of time between the arrival of the different coloured rays being more than half a minute, there might be sufficient time to make the observation.

The Marquis De Courtivron, in a treatise published in 1752, advanced the same opinion with Mr. Melville concerning the cause of the

the different refrangibility of the rays of light, and even proposed the same trial of his hypothesis, viz. by observing the eclipses of Jupiter's satellites; but whereas Mr. Melville supposed that the velocity of the red light exceeds that of the violet only $\frac{1}{7}$ of the whole time of their passage, the Marquis, making use of a theorem of M. Clairaut (in his investigation of the curve described by a ray of light on any hypothesis of the attractive power) found that the difference ought to be as 44 to 43. But since, as M. Clairaut informs us, Mr. Short's observations led him to conclude the phenomena by no means agreed even with Mr. Melville's hypothesis, they were still more conclusive against that of the Marquis, which supposes the difference of velocity to be greater.

In the course of M. Clairaut's enquiry, concerning Mr. Dolland's improvements in telescopes, he examines an hypothesis which makes the different refrangibility of the rays of light to depend upon their different velocities, but he found that the refractions which would result from this principle were very different from those which actually take place in nature.

Mr. Melville also questions whether light be emitted with the same velocity in whatever medium the luminous body be placed, and supposes that the velocity may be greater in denser mediums, and that in proportion to their refractive powers. The same argument, he says, from whence we gather in general the equal velocity of light emitted by all sorts of luminous bodies seems to prove the truth of the latter supposition. For since rays of any one colour, from the sun

and a candle, for instance, are equally refracted by a surface of glass or water, we may conclude that their velocities in air are equal. Wherefore if the density of the sun's atmosphere contiguous to his surface be different from the density of our lower air, as may be safely presumed, his rays must have been emitted with more or less velocity than that of the candle; otherwise they could not have the same velocity afterwards in any common medium, for the velocity with which any ray is emitted is, by the laws of refraction, to its velocity in any given medium, as the sine of refraction to the sine of incidence, when a ray passes from the medium of emission into the given medium.

M. Muschenbroeck argues that, since the red rays have a less degree of refrangibility they move more slowly than the rest, after their separation from the other colours, though he is compelled, by astronomical observations, to acknowledge, that when they are mixed with the other rays, in one beam, they move with equal velocity. He does not, however, think that the colour depends upon the velocity, because, since this changes with the medium through which the rays are transmitted, the colour of the same rays would change in those circumstances. But he did not consider, viz. the observation above mentioned of Mr. Melville, that whatever mediums any ray may pass through, since it must, after all, be transmitted through the same humours of the eye, it will arrive at the retina with the same velocity; and that nothing but a change in the refractive power of the humours of the eye can ascertain the truth of this hypothesis.

NEW METHOD OF PLACING A MERIDIAN MARK.

BY D. RITTENHOUSE, ESQ.

From the Transactions of the American Philosophical Society.

SOME time ago I mentioned to you a new invention I had for fixing a meridian mark for my observatory.

This I have since executed, and as it answers perfectly well. I shall give you a particular description of it.

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When my observatory was first erected, I placed a meridian mark to the northward at the distance of about 1000 feet, my view to the south being too much confined by adjacent buildings, and that to the north was not distant enough to have the mark free from a sensible parallax. But last summer a new brick house was built directly north of the observatory, and much too nigh for distant vision with the transit instrument. Now though a fixed mark is not absolutely necessary where you have a good transit instrument, the position of which may be examined and accurately corrected, if necessary, every fair day, by the passage of the pole-star above and below the pole, it is nevertheless very convenient, saves much trouble, and may sometimes prevent mistakes. We have an instance in the observations of the Astronomer Royal at Greenwich. His mark being taken down at repairing the building to which it was secured, the transit instrument was accidentally thrown out of its true position, and the observations with it were continued for a considerable time before the error was detected. My meridian mark being thus rendered useless, I contrived several other methods of supplying its place, all of which were, on sufficient deliberation, rejected for the following.

I fastened the object glass of a thirty six feet telescope, firmly, to the wall which supports the transit instrument, opposite to and as near as convenient to the object glass of the transit, when brought to a horizontal situation. In the focus of the thirty six feet object glass I screwed fast a piece of brass to a block of marble, supported by a brick pillar built on a good foundation for this purpose in my garden. On this piece of brass are several black concentric circles; the rest of the plate is silvered. The diverging rays of light which proceed from every point in these circles, after passing through the thirty-six feet glass be-

come parallel, and entering the transit instrument, an image of the plate and its circles is formed in the same place where the images of stars or the most distant objects are formed. The circles are therefore distinctly seen through the transit, and being placed in the same meridian with the center of the thirty-six feet glass, the innermost circle, about the size of a brevier o, serves for a meridian mark, to the center whereof the cross hair of the transit may be nicely adjusted.

This mark is in several respects preferable to one placed in the common way. It is entirely free from parallax, which the other cannot be, unless placed at a very great distance, when glasses of great magnifying powers are used. It is not sensibly affected by the undulation of the air, which very often renders it impossible to set the transit accurately to a distant mark. And it can be illuminated at night without difficulty, should the suspicion of any accident to the transit make it necessary. But it has likewise one disadvantage. Should the pillar in settling, carry the mark a little to the east or west, the error will be greater in proportion to its nearness.

P. S. The great improvement of object glasses by Dolland has enabled us to apply eye glasses of so short a focus, that it is difficult to find any substance proper for the cross hairs of fixed instruments. For some years past I have used a single filament of silk, without knowing that the same was made use of by the European astronomers, as I have lately found it is by Mr. Herschell. But this substance, though far better than wires or hairs of any kind, is still much too coarse for some observations. A single filament of silk will totally obscure a small star, and that for several seconds of time; if the star be near the pole. I have lately with no small difficulty placed the thread of a spider in some of my instruments, it has a beautiful effect, it is not one tenth of the size of the thread

thread of the silkworm, and is rounder and more evenly of a thickness. I have hitherto found no inconvenience from the use of it, and believe it will be lasting, it being

more than four months since I first put it in my transit telescope, and it continues fully extended, and free from knots or particles of dust.

ACCOUNT OF A WORM IN A HORSE'S EYE.

BY F. HOPKINSON, ESQ.

From the Same.

HAVING been myself a witness to the following curious fact, I thought it should not pass unrecorded, especially as it occurred in Philadelphia, under the immediate notice of the Philosophical Society.

A report prevailed last summer that a horse was to be seen which had a living serpent in one of his eyes. At first I disregarded this report, but numbers of my acquaintance, who had been to see the horse, confirming the account, I had the curiosity to go myself, taking a friend along with me. The horse was kept in Arch-street and belonged to a free negroe. I examined the eye with all the attention in my power, being no ways disposed to credit the common report, but rather expecting to detect a fraud or vulgar prejudice; I was much surprised, however, to see a real living worm within the ball of the horse's eye. This worm was of a clear white colour, in size and appearance much like a piece of fine bobbin; it seemed to be from $2\frac{1}{2}$ to 3 inches in length, which however, could not be duly ascertained, its whole length never appearing at one time, but only such a portion as could be seen through the iris, which was greatly dilated. The creature was in a constant lively vermicular motion; sometimes retiring so deep into the eye as to become totally invisible, and at other times approaching so near to the iris as to become plainly and distinctly seen; at least so much of it as was within the field of the iris. I could not distinguish its head, neither end being perfectly

exhibited whilst I viewed it, and indeed its motion was so brisk and constant, that so nice a scrutiny was not to be expected. The horse's eye was exceedingly enflamed, swollen and running; I mean the muscles contiguous to the eye ball, and seemed to give him great pain; so that it was with much difficulty the eye could be kept open for more than a few seconds at a time; and I was obliged to watch favourable moments for a distinct view of his tormentor. I believe the horse was quite blind in that eye, for it appeared as if all the humours were confounded together, and that the worm had the whole orb to range in, which, however, was not of a diameter sufficient for the worm to extend its full length, as far as I could discover. The humours of the eye were beginning to grow opaque like a chilled jelly, and became altogether so afterwards, as I was informed.

As this is a very uncommon circumstance, and may affect some philosophical doctrines, it is much to be lamented that the horse had not been purchased, and the eye dissected for better examination. That there was a living, self-moving worm within the ball of the horse's eye, free from all deception or mistake, I am most confident. How this worm got there, or if bred in so remarkable a place, where its parents came from, or how they contrived to deposit their semen or convey their egg into the eye of an horse, I leave for others to determine.

ACCOUNT

ACCOUNT OF THE CUPRESSUS DISTICHA.

BY WILLIAM BARTRAM.

THE cupressus disticha stands in the first order of North American trees. Its majestic stature is surprising; and on approaching it, we are struck with a kind of awe, at beholding the stateliness of the trunk, lifting its cumbrous top towards the skies, and casting a wide shade upon the ground, as a dark intervening cloud, which, for a time, excludes the rays of the sun. The delicacy of its colour and texture of its leaves, exceed every thing in vegetation. It generally grows in the water, or in low flat lands, near the banks of great rivers and lakes, that are covered, great part of the year, with two or three feet depth of water; and that part of the trunk which is subject to be under water, and four or five feet higher up, is greatly enlarged by prodigious buttresses, or pilasters, which, in full grown trees, project out on every side, to such a distance, that several men might easily hide themselves in the hollows between. Each pilaster terminates under ground, in a very large, strong, serpentine root, which strikes off, and branches every way, just under the surface of the earth: and from these roots grow woody cones, called cypress knees, four, five, and six feet high, and from six to eighteen inches and two feet in diameter at their bases. The large ones are hollow, and serve very well for bee-hives; a small space of the tree itself is hollow, nearly as high

as the buttresses already mentioned. From this place, the tree, as it were, takes another beginning, forming a grand straight column eighty or ninety feet high, when it divides every way around into an extensive flat horizontal top, like an umbrella, where eagles have their secure nests, and cranes and storks their temporary resting places; and what adds to the magnificence of their appearance, is the streamers of long moss that hang from the lofty limbs and float in the winds. This is their majestic appearance when standing alone, in large rice plantations, or thinly planted on the banks of great rivers.

Parroquets are commonly seen hovering and fluttering on their tops: they delight to shell the balls, its seed being their favourite food. The trunks of these trees, when hollowed out, make large and durable pettiangers and canoes, and afford excellent shingles, boards, and other timber, adapted to every purpose in frame buildings. When the planters fell these mighty trees, they raise a stage round them, as high as to reach above the buttresses; on this stage, eight or ten negroes ascend with their axes, and fall to work round its trunk. I have seen trunks of these trees that would measure eight, ten, and twelve feet in diameter, for forty and fifty feet straight shaft.

ACCOUNT OF THE ALIGATORS OF FLORIDA.

By the Same.

ON turning a point or projecting of the river bank, at once I beheld a great number of hillocks or small pyramids, resembling hay-cocks, ranged like an encampment along the banks. They stood fifteen or twenty yards distant from the

water, on a high marsh, about four feet perpendicular above the water. I knew them to be the nests of the crocodile, having had a description of them before.

The nests or hillocks are of the form of an obtuse cone, four feet high

high, and four or five feet in diameter at their bases; they are constructed with mud, grass, and herbage. At first they lay a floor of this kind of tempered mortar on the ground, upon which they deposit a layer of eggs, and upon this a stratum of mortar, seven or eight inches in thickness, and then another layer of eggs, and in this manner one stratum upon another, nearly to the top. I believe they commonly lay from one to two hundred eggs in a nest: these are hatched, I suppose, by the heat of the sun; and perhaps the vegetable substances mixed with the earth, being acted upon by the sun, may cause a small degree of fermentation, and so increase the heat in those hillocks. The ground for several acres about these nests shewed evident marks of a continual resort of alligators; the grass was every where beaten down, hardly a blade or straw was left standing; whereas, all about, at a distance, it was five or six feet high, and as thick as it could grow together. The female, as I imagine, carefully watches her own nest of eggs until they are all hatched; or perhaps while she is attending her own brood, she takes under her care and protection as many as she can get at one time, either from her own particular nest or others: but certain it is, that the young are not left to shift for themselves; for I have had frequent opportunities of seeing the female alligator leading about the shores her train of young ones, just as a hen does her brood of chickens; and she is equally assiduous and courageous in defending the young, which are under her care, and providing for their subsistence; and when she is basking upon the warm banks, with her brood around her, you may hear the young ones continually whining and barking, like young puppies. I believe but few of a brood live to the years of full growth and magnitude, as the old feed on the young as long as they can make prey of them.

The alligator when full grown is a very large and terrible creature, and of prodigious strength, activity, and swiftness in the water. I have seen them twenty feet in length, and some are supposed to be twenty-two or twenty-three feet. Their body is as large as that of a horse; their shape exactly resembles that of a lizard, except their tail, which is flat or cuneiform, being compressed on each side, and gradually diminishing from the abdomen to the extremity, which, with the whole body is covered with horny plates or squammæ; impenetrable when on the body of the live animal, even to a rifle ball, except about their head and just behind their fore-legs or arms, where it is said they are only vulnerable. The head of a full grown one is about three feet, and the mouth opens nearly the same length; their eyes are small in proportion and seem sunk deep in the head, by means of the prominency of the brows; the nostrils are large, inflated and prominent on the top, so that the head in the water resembles, at a distance, a great chunk of wood floating about. Only the upper jaw moves, which they raise almost perpendicular, so as to form a right angle with the lower one. In the fore part of the upper jaw, on each side, just under the nostrils, are two very large, thick, strong teeth or tusks, not very sharp, but rather the shape of a cone: these are as white as the finest polished ivory, and are not covered by any skin or lips, and always in sight, which gives the creature a frightful appearance: in the lower jaw are holes opposite to these teeth, to receive them: when they clap their jaws together it causes a surprising noise, like that which is made by forcing a heavy plank with violence upon the ground, and may be heard at a great distance.

But what is yet more surprising to a stranger, is the incredible loud and terrifying roar, which they are capable of making, especially in the spring season, their breeding time.

It most resembles very heavy distant thunder, not only shaking the air and waters, but causing the earth to tremble; and when hundreds and thousands are roaring at the same time, you can scarcely be persuaded but that the whole globe is violently and dangerously agitated.

An old champion, who is perhaps absolute sovereign of a little lake or lagoon (when fifty less than himself are obliged to content themselves with swelling and roaring in little coves round about) darts forth from the reedy coverts all at once, on the surface of the waters, in a right line; at first seeming as rapid as lightning, but gradually more slowly, until he arrives at the center of the lake, when he stops. He now swells

himself, by drawing in wind and water through his mouth, which causes a loud sonorous rattling in the throat for near a minute, but it is immediately forced out again through his mouth and nostrils, with a loud noise, brandishing his tail in the air, and the vapour ascending from his nostrils like smoke. At other times, when swollen to an extent ready to burst, his head and tail lifted up, he spins or twirls round on the surface of the water. He acts his part like an Indian chief when rehearsing his feats of war; and then retiring, the exhibition is continued by others who dare to step forth, and strive to excel each other, to gain the attention of the favourite female.

ON THE NATURE OF BIRDS.

BY THE LATE COUNT BUFFON.

(*Concluded from Page 97.*)

THE dispositions and habit of animals depend greatly on their original appetites. We may therefore compare the eagle, noble and generous, to the lion; the vulture, cruel and insatiable, to the tiger; the kite, the buzzard, the crow, which only prowl among carrion and garbage, to the hyænas, the wolves, and jackals. The falcons, the sparrow-hawks, and the other birds trained for sport, are analogous to the dogs, the foxes, the ounces, and the lynxes; the owls, which prey in the night, represent the cats; the herons, and the cormorants, which live upon fish, correspond to the beavers and otters; and in their mode of subsistence, the woodpeckers resemble the ant eaters. The common cock, the peacock, the turkey, and all the birds furnished with a craw, bear a relation to the ox, the sheep, the goat, and other ruminating animals. With regard to the article

of food, birds have a more ample latitude than quadrupeds; flesh, fish, the amphibious tribes, reptiles, insects, fruits, grain, seeds, roots, herbs; in a word, whatever lives or vegetates. Nor are they very nice in their choice, but often catch indifferently at what they can most easily obtain. The sense of taste is much less acute in birds than in quadrupeds; for, if we except such as are carnivorous, their tongue and palate are in general hard, and almost cartilaginous. Smell can alone direct them, and this they possess in an inferior degree. The greater number swallow without tasting, and mastication, which constitutes the chief pleasure in eating, is entirely wanting to them. Hence, on all these accounts, they are so little attentive to the selection of their food, that they often poison themselves.*

The attempt is impossible therefore to distinguish the winged tribes according to the nature of their aliments.

* Parsley, coffee, bitter almonds, &c. prove poisonous to hens, parrots, and many other birds, which eat these substances with avidity when presented with other food.

aliments. The more constant and determined appetites of quadrupeds might countenance such a division;* but in birds, where the taste is so irregular, it would be entirely nugatory. We see hens, turkeys, and other fowls which are called granivorous, eat worms, insects, and bits of flesh with greater avidity than grain. The nightingale, which lives on insects, may be fed with minced meat; the owls, which are naturally carnivorous, often when other prey fails, catch night-flies in the dark; nor is their hooked bill, as those who deal in final causes maintained, any certain proof that they have a decided propensity for flesh, since parrots and many other birds which seem to prefer grain have also a hooked bill. The more voracious kinds devour fish, toads, and reptiles, when they cannot obtain flesh. Almost all the birds which appear to feed upon grain,

were reared by their parents with insects. The arrangement derived from the nature of the food is thus totally destitute of foundation. No one character is sufficient: it requires the combination of many.

Since birds cannot chew, and the mandibles which represent the jaws are unprovided with teeth, the grains are swallowed whole, or only half bruised.† But the powerful action of the stomach serves them instead of mastication; and the small pebbles, which assist in trituration, may be conceived to perform the office of teeth.‡

As nature has invested the quadrupeds which haunt marshes, or inhabit cold countries, with a double fur, and with thick close hair; so has she clothed the aquatic birds, and those which live in the northern tracts, with abundance of plumage, and a fine down; inasmuch that, from this circumstance alone, we may

* Frisch, whose work is in many respects valuable, divides all birds into twelve classes. The first contains the small birds, with a thick short bill, which split seeds into two equal portions; the second includes the small birds with a slender bill, that eat flies and worms; the third comprehends the black-birds and thrushes; the fourth, the woodpeckers, cuckoos, hoopoes, and parrots; the fifth, the jays and magpies; the sixth, the rooks and crows; the seventh, the diurnal birds of prey; the eighth, the nocturnal birds of prey; the ninth, the wild and tame poultry; the tenth, the wild and tame pigeons; the eleventh, the geese, ducks, and other swimming animals; the twelfth, the birds which are fond of water and wet places.—We easily see that the instinct of opening seeds in two equal portions ought not to be adopted as a character, since in this same class there are birds, such as the titmice, that do not split them, but pierce and tear them; and that, besides, all the birds of this first class, which are supposed to subsist solely on seeds, feed likewise on insects and worms: it was better, therefore, as Linnaeus has done, to join them into one class.

† In parrots, and many other birds, the upper mandible is moveable as well as the under; whereas in quadrupeds the lower jaw only is moveable.

‡ In no animals is the mode of digestion so favourable as in birds to the system of trituration. Their gizzard has the proper force and direction of fibres; and the voracious kinds, which greedily snatch the seeds on which they feed without stopping to separate the hard crust which envelopes them, swallow at the same time little stones, by means of which the violent contraction of the coats of the stomach bruises and detaches the shell. This is a real trituration, which in other animals is performed by the teeth. But, after the seeds are decorticated, the action of a solvent may take place; and there is a sort of bag from which a large quantity of a whitish liquor flows into the stomach, for in a recently dead bird it may be pressed out. Helvetius subjoins, that sometimes in the oesophagus of the cormorant, fish are found half digested. *Hist. de l'Académie des Sciences, ann. 1719.*

Seventy doubles were found in the stomach of an ostrich, most of them worn three-fourths, and furrowed by their rubbing against each other, and against the pebbles, but not at all affected by solution, for some which happened to be crooked were quite polished on the convex side, while the concave side was not altered. *Mémoires pour servir à l'Histoire des Animaux.*

A Spanish gold pistole swallowed by a duck had lost sixteen grains of its weight when voided. *Collect. Acad. Partie Etrangère.*

may judge of their proper element, or of their natal region. In all climates, the birds which dwell in the water are nearly equally feathered, and have under the tail large glands, containing an oily substance for anointing their plumes, which, together with their thickness, prevents the moisture from insinuating. These glands are much smaller in the land-birds, or totally wanting.

Birds that are almost naked, such as the ostrich, the cassowary, and the dodo, occur only in the warm climates. All those which inhabit cold countries are well clothed with plumage. And for the same reason, those which soar into the higher regions of the atmosphere require a thick covering, that they may encounter the coldness which there prevails. If we pluck the feathers from the breast of an eagle, he will no longer rise out of our sight.

The greater number of birds cast their feathers every year, and appear to suffer much more from it than the quadrupeds do from a similar change. The best fed hen ceases at that time to lay. The organic molecules seem then to be entirely spent on the growth of the new feathers. The season of moulting is generally the end of summer or autumn,* and their feathers are not completely restored till the beginning of spring, when the mildness of the air, and the superabundance of nutrition, urge them to love. Then all the plants shoot up, the insects awaken from their long slumber, and the earth swarms with animation. This ample provision fosters their ardent passions, and offers abundant subsistence to the fruits of their embrace.

We might deem it as essential to the bird to fly, as it is to the fish to swim, or to the quadruped to walk;

yet in all these tribes there are exceptions to the general property. Among quadrupeds the rufous, red and common bats, can only fly; the seals, the sea-horses, and sea-cows, can only swim; and the beavers and otters walk with more difficulty than swim: and, lastly, there are others, such as the sloth, which can hardly drag along their bodies. In the same manner, we find among birds the ostrich, the cassowary, the dodo, the touyou, &c. which are incapable of flying, and are obliged to walk; others, such as the penguins, the sea-parrots, &c. which fly and swim, but never walk; and others, in fine, which, like the bird of paradise, can neither walk nor swim, but are perpetually on the wing. It appears, however, that water is, on the whole, more suited to the nature of birds than to that of quadrupeds: for, if we except a few species, all the land animals shun that element, and never swim, unless they are urged by their fears or wants. Of the birds, on the contrary, a large tribe constantly dwell on the waters, and never go on shore, but for particular purposes, such as to deposit their eggs, &c. And what proves this position, there are only three or four quadrupeds which have their toes connected by webs; whereas we may reckon above three hundred birds which are furnished with such membranes. The lightness of their feathers and of their bones, and even the shape of their body, contribute greatly to the facility with which they swim, and their feet serve as oars to impel them along. Accordingly, certain birds discover an early propensity to the water; the ducklings sail on the surface of the pool long before they can use their wings.

In

* Domestic fowls generally moult in autumn; partridges and pheasants, before the end of the summer; and such as are kept in parks, cast their feathers immediately after their first hatch. In the country, the pheasants and partridges undergo that change about the close of July, only the females which have had young are some days later. Wild ducks moult rather before that time.—I owe these remarks to M. Le Roy, king's ranger at Versailles.

In quadrupeds, especially those which have their feet terminated by hard hoofs or nails, the palate seems to be the principal seat of touch as well as of taste. Birds, on the other hand, oftener feel bodies with their toes; but the inside of these is covered with a callous skin, and their tongue and mouth are almost cartilaginous: so that, on both accounts, their sensations must be blunt.

Such then is the order of the senses which nature has established in the different beings. In man, touch is the first, or most perfect; taste the second; sight the third; hearing the fourth; and smell the fifth and last. In quadrupeds, smell is the first; taste the second, or rather these two senses form only one; sight the third; hearing the fourth; and touch the last. In birds, sight is the first; hearing the second; touch the third; and taste and smell the last. The predominating sensations will also follow the same order: man will be the most affected by touch; the quadrupeds by smell; and the birds by sight. These will likewise give a cast to the general character, since certain motives of action will acquire peculiar force, and gain the ascendancy. Thus, man will be more thoughtful and profound, as the sense of touch would appear to be more calm and intimate; the quadrupeds will have more vehement appetites; and the birds will have emotions as extensive and volatile as is the glance of sight.

But there is a sixth sense, which, though it intermits, seems, while it acts, to controul all the others, and excites the most powerful emotions, and awakens the most ardent affections:—it is love. In quadrupeds, that appetite produces violent effects; they burn with maddening desire; they seek the female with savage ardor; and they embrace with furious extacy. In birds it is a softer, more tender, and more endearing passion; and, if we ex-

cept those which are degraded by domestication, and a few other species, conjugal fidelity and parental affection are among them alike conspicuous. The pair unite their labours in preparing for the accommodation of their expected progeny; and, during the time of incubation, their participation of the same cares and solitudes continually augments their mutual attachment. After the eggs are hatched, a new source of pleasure opens to them, which further strengthens the ties of affection; and the tender charge of rearing the infant brood requires the joint attention of both parents. The warmth of love is thus succeeded by calm and steady attachment, which by degrees extends, without suffering any diminution, to the rising branches of the family.

The quadrupeds are impelled by unbridled lust, which never softens into generous friendship. The male abandons the female as soon as the cravings of his appetite are cloyed; he retires to recruit his strength, or hastens to the embraces of another. The education of the young is devolved entirely on the female; and as they grow slowly, and require her immediate protection, the maternal tenderness is ripened into a strong and durable attachment. In many species the mother leads two or three litters at one time. There are some quadrupeds, however, in which the male and female associate together; such are wolves and foxes: and the fallow-deer have been regarded as the patterns of conjugal fidelity. There are also some species of birds where the cock separates after satisfying his passion;—but such instances are rare, and do not affect the general law of nature.

That the pairing of birds is founded on the need of their mutual labours to the support of the young, appears clearly from the case of the domestic fowls. The male ranges at will among a seraglio of submissive concubines; the season of love has

hardly any bounds; the hatches are frequent and tedious; the eggs are often removed; and the female never seeks to breed, until her prolific powers are deadened, and almost exhausted: besides, they bestow little care in making their nest, they are abundantly supplied with provisions, and by the assistance of man they are freed from all those toils and hardships and solitudes which other birds feel and share in common. They contract the vices of luxury and opulence, indolence and debauchery.

The easy comfortable condition of the domestic fowls, and their generous food, mightily invigorate the powers of generation. A cock can tread twelve or fifteen hens, and each embrace continues its influence for three weeks; so that he may each day be the father of three hundred chickens. A good hen lays a hundred eggs between the spring and autumn; but in the savage state she has only eighteen or twenty, and that only during a single season. The other birds indeed repeat oftener their incubations, but they lay fewer eggs. The pigeons, the turtles, &c. have only two; the great birds of prey three or four; and most other birds five or six.

Want, anxiety, and hard labour, check in all animals the multiplication of the species. This is particularly the case with birds; they breed in proportion as they are well fed, and afforded ease and comfort. In the state of nature, they seem even to husband their prolific powers, and to limit the number of their progeny to the penury of their circumstances. A bird lays five eggs, perhaps, and devotes her

whole attention during the rest of the season to the incubation and education of the young. But if the nest be destroyed, she soon builds another, and lays three or four eggs more; and if this be again plundered, she will construct a third, and lay still two or three eggs. During the first hatch, therefore, those internal emotions of love which occasion the growth and exclusion of the eggs, are repressed. She thus sacrifices duty to passion, amorous desire to parental attachment. But when her fond hopes are disappointed, she soon ceases to grieve; the procreative faculties, which were suspended, not extinguished, again resume their influence, and enable her in some measure to repair her loss.

As love is a purer passion in birds than in quadrupeds, its mode of gratification is also simpler. Coition is performed among them only in one way,* while many other animals embrace in various postures;† only in some species, as in that of the common cock, the female squats; and in others, such as the sparrows, she continues to stand erect. In all of them the act is transitory, and is still shorter in those which in their ordinary attitude wait the approach of the male, than in those which cower to receive him.‡ The external form, and the internal structure of the organs of generation are very different from what obtains in quadrupeds. The size, the position, the number, the action and motion of these parts even vary much in the several species of birds.§ In some there appears to be a real penetration; in others, a vigorous compression, or slight touch.

To concentrate the different principles

* Aristotle, lib. v. 8.

† The she-camel squats; the she elephant turns upon her back; the hedgehogs couple face to face, and either in an erect or reclined posture; and monkeys in every manner.

‡ Aristotle, lib. v. 2.

§ Most birds have two yards, or a forked one projecting from the anus. In some species the male organ is exceedingly large; in others hardly visible. The female orifice is not situated, as in the quadrupeds, below the anus, but above it; and there is no matrix, &c.

ciples established in this discourse: that the sensorium of birds contains chiefly the images derived from the sense of sight; and these, though superficial, are very extensive, and, for the most part, relate to motion, to distance, and to space: that comprehending a whole province within the limits of their horizon, they may be said to carry in their brain a geographical chart of the places which they view: that their facility in traversing wide territories is one of the causes which prompt their frequent excursions and migrations: that their ear being delicate, they are alarmed by sudden noises, but may be soothed by soft sounds, and allured by calls: that their organs of voice being exceedingly powerful and soft, they naturally vent their feelings in loud resounding strains: that, as they have more signs and inflexions, they can, better than the quadrupeds, express their meaning: that easily receiving, and long retaining the impressions of sounds, the organ delights in repeating them; but that its imitations are entirely mechanical, and have no relation to their conceptions: that their sense of touch being obtuse, they have only imperfect ideas of bodies: that they re-

ceive their information of distant objects from sight, not from smell: that as their taste is indiscriminating, they are more prone to voracity than sensuality: that, from the nature of the element which they inhabit, they are independent of man, and retain their natural habits; that, for this reason, most of them are attached to the society of their fellows, and eagerly convene: that, being obliged to unite their exertions in building a nest, and in providing for their offspring, the pair contract an affection for each other, which continues to grow, and then extends to the tender brood: that this friendship restrains the violent passions, and even tempers love, and begets chastity and purity of manners, and gentleness of disposition: that, though their power of fruition is greater than in other animals, they confine its exercise within moderate bounds, and ever subject their pleasures to their duties: and, finally, that these sprightly beings, which nature would seem to have produced in her gay moments, may be regarded as a serious and decent race, which exhibit excellent lessons and laudable examples of morality.

ACCOUNT OF THE ISLAND OF CELEBES.

BY THOMAS FORREST, ESQ.

[Concluded from Page 118.]

NEXT day we heard there was a misunderstanding between the sultan and the Buggeises about the collection of port duties, the latter insisting on what for many years they had enjoyed, and for which they had always defended the freedom of the port from Dutch influence. At this time we had landed many bales of long cloth white and blue, iron and lead, from the Britannia, which Mr. Edward Coles, the appointed resident, was disposing of. Mr. Herbert, however, took

the alarm, and went on board the Britannia, at the same time sent me to reconnoitre the little Paternofers, a group of thirteen small islands already mentioned.

I was about four days gone, and on my return found that three days after Mr. Herbert went on board the Britannia, Teroway, a Buggeis orancayo, and his men, had surrounded the sultan's fort, and forced him to leave Passir, and retire to another river about 100 miles south of it. He was allowed to take with

him

him all his property without the least restraint. I was next day sent on shore by Mr. Herbert to bring off the Company's goods. I found the greatest tranquillity in the place, as if nothing had happened, notwithstanding the recent revolution.

Teroway behaved with the greatest civility to Mr. Coles and myself, and lamented our intended departure. Mr. Coles, after sending off the Company's goods, embarked on board the *Britannia*, by Mr. Herbert's positive order, though much against his own opinion and wishes, as at this very time a number of Buggefs' prows entered the river loaded with rich cargoes, and we had purchased a good deal of opium of Capt. Clements, from Bengal, of which these prows were in great want. Passir, as a factory, would certainly have been very advantageous to the Company, its situation being very central; and, as I was only a spectator in this business, I must own, in my opinion, Mr. Coles was right, and Mr. Herbert was rather impatient and irresolute. The revolution being quietly brought about without bloodshed, and there being not the least danger of another, was the moment for us to fix, under the protection of the Buggefs, and without any charge of guard and garrison, quietly trade as in China (paying only a moderate duty of five per cent. but no port duty or measurement whatever, as in China), in a plentiful country of great resort.

From Passir, the *Britannia* went to Sooloo, where opium is not in great demand, Celebes being its great mart. From Sooloo, the *Britannia* went to Balambangan, the capture of which place by the Sooloes, under a certain sturdy baron

called Dattoo Teting, is related in my voyage to New Guinea, in February 1775.

I have thought proper to mention the above incident at Passir, as it shews something of the character of the Buggefs. They are by far men of the most honour of any of the Malay cast I ever met with, are really a distinct people, and have something free and dignified in their manner superior to other Malays.* After the Count d'Estaing destroyed and abandoned Fort Marlbro', in 1760, many Buggefs' prows came there to trade. I sold them many chests of opium for dollars and Persian rupees, imported by the French, no doubt, from Gambaroon; and though they were under no restraint, they behaved with great honour and fairness to me, who was entirely in their power. Fort Marlbro' was resettled some months afterwards by Capt. Vincent, of the *Osterly*, who was succeeded by Mr. Audly from Madras.

In the above-mentioned voyage, page 228, I observed, that Malfalla, a relation of the sultan of Mindano, brought seventy slaves from Celebes. One of them, a very decent Buggefs, named Setoppo, told me the Dutch get gold from the north coast of that island, including Manado, to a great amount.

Tontolce, rather on the N. W. coast under Mandar,

| | |
|--------------------------------|-------------|
| Produces trays of a dollar and | |
| a half weight, yearly | - - 300 |
| Bole, lying east Tontolce | - 5,000 |
| Boliman | - - - 5,000 |
| Koandang, under Mander, | |
| where are good horses, and | |
| off which are many small | |
| islands | - - - 3,000 |
| Bolang Itam | - - - 300 |
| Kydeepan | - - - 200 |
| Amoran, | |

* The Macassars and Buggefs' people, who come annually to trade at Sumatra, are looked upon by the inhabitants as their superiors in manners; the Malays affect to copy their style of dress, and frequent allusions to their feats and achievements are made in their songs. Their reputation for courage, which certainly surpasses that of all others in the eastern seas, acquires them this flattering distinction; they also derive part of the respect shewed to them, from the richness of the cargoes they import, and the spirit with which they spend the produce. *Marliden's Sumatra*, p. 172.

Amoran, where is much rice
and a harbour - - - 1,000
Bolong, producing wax, birds
nests, and much rice - - 5,000
Manado and Gorantellu - - 5,000

Tayels 24,800
which at 5 $\frac{1}{2}$ the taylor is, pounds
sterling 124,000. The Dutch gar-
rison their different possessions on
this island, with about 8 or 900 Eu-
ropeans, and country troops.

The Dutch gain much on their
copper money, which going amongst
the highlanders, and often worn as
ornament (by children especially),
never returns. About the year
1770, the Dutch obliged the inha-
bitants of Limboton to build a fort
near Koandang, 500 feet square;
the walls three fathoms high. Se-
toppo could have no view in de-
ceiving me in this account. The
poor man was ill at the time he
gave it me.

I shall now describe the great
gulf (Sewa) from the information
of Noquedah Inankee, who has al-
ready been mentioned. I presented
the Noquedah with a set of the
charts (Pata), and views of land
(Toolisan) of my New Guinea
voyage; on each of which he wrote
name and explanation in the Bug-
gels language, and was much grati-
fied with the present.

Having passed the strait between
Celebes and Salayer, called the
Buggeroons, keep on in a direction
N. E. by N. about 130 miles, and
you will find, near the west coast of
the Sewa, a small island called Ba-
loonroo: it is visible eight or ten
leagues off, and has on its east end
some rocky islets; they must be left
on the left hand going north. Fur-
ther on, about a day's sail, which I
fix at sixty miles, is the mouth of
the river Chinrana: this river takes
its rise in the Warjoo country, and
passes through Bony; the capital of
which is called Tossoro, and lies a
day's journey by water from the
mouth of the river; it has a good

muddy bar, passable by large ships,
and navigable a good way up. It
has several mouths; and there are
many towns on its banks, as has
been said in both the divisions of
Bony and Warjoo, where a great
trade is carried on in gold, rice,
sago, cassia, tortoise-shell, pearls,
swallow, agal-agal, &c. &c. The
anchorage is good off the river's
mouth.

Half a day's sail further N. along
the west coast of the Buggels Bay or
Sewa, is the river Peeneckee, not
very considerable. Further on are
two places called Akolingan and
Telludopin on the said west coast;
they are pretty well inhabited.—
Continuing still N. you come to the
river Sewa, not very considerable;
then to the river Loo, famous for
boat building: then you come to
Mankakoo, where there is gold and
much sago very cheap: they have
also cassia and seed pearl.

Being now come to the bottom
of the Buggels Bay, the sago-tree
abounds very much; and in many
parts of the Sewa there are spots of
foul ground on which they fish for
swallow, which they generally carry
to Macassar, to sell to the China
Junk.

On the east side of the Sewa the
country is not so well inhabited as
on the west side; the S. E. point of
the Sewa is called Pajungan; here
is a cluster of islands, rather small,
with good anchorage amongst them.
Having left the Bay, you come to
the high mountains of Cabayan,
and the island Booton, where lives
a prince independent of any Bug-
gels power, but, I believe, under
Dutch influence.

This Noquedah Inankee had na-
vigated a good deal about Celebes
and the adjacent islands: he told
me the Gentoos, on the island Bally,
worship seven gods, named in ge-
neral Dewa; or rather one god, to
whom they give seven different at-
tributes; that there are several places
well inhabited west of Carang-Assem
on

on that island, named Padang, Camfamba, and Tubang, which last has a harbour. The high peak of Bally, bearing N. by E. from Carang-Asem road, is called Agong, and the high peak of Lomboc, Rangamy.

I also learned from him, that that part of Lomboc opposite to Bally is called Salla, where is the road of Tanjong Carang (rocky point), into which you run over a rocky entrance, with six fathoms depth for 200 yards. In the S. E. corner of this road is a harbour called Tring, with seven and eight fathoms muddy ground.

He also told me, that on the N. W. part of Lomboc is a harbour called Kombang. I consider all this information about Tanjong Carang road, Tring and Kombang harbours, as good hints. If ships go this way, it is surely worth while to send boats to reconnoitre the truth. I can never believe Inankee wanted to deceive; but the ideas of Malays in general (accustomed to small vessels) and ours are different with respect to harbours: he called Lomboc Strait Kallat Banco-banco, which means Whirlpool Strait.—Banco is a Bally word, Kallat a Malay word, signifying strait: and here I cannot help mentioning the comfortable and cheap refreshment that is to be had at Carang-Asem (Rough Stone): see Dalrymple's maps; amongst which is a view of Bally Peak (Agong). Bullocks three dollars a-head, hogs a dollar; ducks twelve for a dollar, fowls twenty; rice very cheap; and the great convenience of watering by their country canoes, that will carry on board twenty or thirty gang casks for a dollar, two casks at a time. Bring the Peak (Agong) N. by E. and anchor in ten fathom sand and mud, a mile from shore, entirely out of the tide. The canoes go into a small river, and get excellent water.

The climate of Celebes, already

spoken of, also the animals, may be considered as much the same as those of Sumatra, and the former as much diversified; of which Mr. Marsden gives a just account.

Inankee confirmed to me the account I have given in my voyage to New Guinea, of the Gentoos on Lomboc having large tanks on the hills for watering the rice-grounds during dry weather.

The gold of Celebes is generally got, as on Sumatra, from the beds of rivers and torrents; and there are many springs issuing from crevices of rocks that bring some little gold along with the water, which, running through a vessel bottomed with sand, leaves its treasure behind.

At Pulo Sinko, called Salida in some maps, a Dutch settlement in Sumatra, I remember, in 1758, close by the sea side, a small spring of fresh water running from a crevice of the rock equal to what issues from an ordinary tea-urn; it ran into a small cask, about the size of a butter-firkin: some years afterwards the cask was full of sand and gravel. The resident, Mynheer Van-Kempen, in 1771, took it into his head to wash this gravel; for which purpose a canoe, lying close to the spring, presented itself as very convenient: he got from a firkin full of sand and gravel as much gold as made his lady a sizeable ring, which I saw on her finger.

Some rivers are famous for giving gold of a high touch; others give pale gold, of a low touch—*Mas mado*.

The Battas of Sumatra make tanks, well floored with planks, and place them near a brook or torrent; the tanks having gathered much-sediment, they turn in a buffalo, which being driven a good deal up and down amongst the wet earth, the gold subsides; they then throw off the upper earth, and find more or less gold at the bottom, according to their good fortune.

DISSERTATION ON THE PERSIANS.

BY SIR W. JONES.

[*Concluded from Page 122.*]

II. **T**HE primeval religion of Irân, if we rely on the authorities adduced by Mohsani Fâni, was that which Newton calls the oldest (and it may justly be called the noblest) of all religions; "a firm belief that one Supreme God made the world by his power, and continually governed it by his providence; a pious fear, love, and adoration of him; a due reverence for parents and aged persons; a fraternal affection for the whole human species; and a compassionate tenderness even for the brute creation." A system of devotion so pure and sublime could hardly, among mortals, be of long duration; and we learn from the Dabistân, that the popular worship of the Irânians, under Húthang, was purely Sabian; a word of which I cannot offer any certain etymology, but which has been deduced by grammarians from Sabâ, a host, and particularly the host of heaven, or the celestial bodies, in the adoration of which the Sabian ritual is believed to have consisted. There is a description in the learned work just mentioned of the several Persian temples dedicated to the sun and planets, of the images adored in them, and of the magnificent processions to them on prescribed festivals, one of which is probably represented by sculpture in the ruined city of Jemshîd. But the planetary worship in Persia seems only a part of a far more complicated religion which we now find in these Indian provinces; for Mohsani assures us, that, in the opinion of the best informed Persians who professed the faith of Húthang, distinguished from that of Zêrâdusht, the first monarch of Irân and of the whole earth was Mahâbâd, a word apparently Sanskrit; who divided the people into

four orders, the religious, the military, the commercial, and the servile; to which he assigned names unquestionably the same in their origin with those now applied to the four primary classes of the Hindus. They added, that he received from the Creator, and promulgated among men, a sacred book in a heavenly language, to which the Muselman author gives the Arabic title of *De-fatîr*, or regulations, but the original name of which he has not mentioned: and that fourteen Mahâbâds had appeared or would appear in human shapes for the government of this world. Now when we know that the Hindus believe in fourteen Menu's, or celestial personages with similar functions, the first of whom left a book of regulations, or divine ordinances, which they hold equal to the Vêda, and the language of which they believe to be that of the Gods, we can hardly doubt, that the first corruption of the purest and oldest religion was the system of Indian theology invented by the Brâhmanas, and prevalent in those territories where the book of Mahâbâd, or Menu, is at this hour the standard of all religious and moral duties. The accession of Cayumers to the throne of Persia, in the eighth or ninth century before Christ, seems to have been accompanied by a considerable revolution both in government and religion. He was most probably of a different race from the Mahâbâdians, who preceded him, and began perhaps the new system of national faith which Húthang, whose name it bears, completed; but the reformation was partial; for, while they rejected the complex polytheism of their predecessors, they retained the laws of Mahâbâd with a superstitious veneration for the sun, the planets, and fire; thus re-

sembling the Hindu sects called Sauras and Sâgnicas; the second of which is very numerous at Banares, where many agnihôtras are continually blazing; and where the Sâgnicas, when they enter on their sacerdotal office, kindle, with two pieces of the hard wood femî, a fire which they keep lighted through their lives for their nuptial ceremony, the performance of solemn sacrifices, the obsequies of departed ancestors, and their own funeral pile. This remarkable rite was continued by Zerâtušt; who reformed the old religion by the addition of genii, or angels, presiding over months and days; of new ceremonies in the veneration shewn to fire; of a new work which he pretended to have received from heaven; and, above all, by establishing the actual adoration of one Supreme Being. He was born, according to Mohsan, in the district of Rai; and it was he, not, as Ammianus asserts, his protector Gushtasp, who travelled into India, that he might receive information from the Brâhmans in theology and ethicks. It is barely possible that Pythagoras knew him in the capital of Irak; but the Grecian sage must then have been far advanced in years, and we have no certain evidence of an intercourse between the two philosophers. The reformed religion of Persia continued in force till that country was subdued by the Muselmans; and, without studying the Zend, we have ample information concerning it in the modern Persian writings of several who professed it. Bahman always named Zerâtušt with reverence; but he was in truth a pure Theist, and strongly disclaimed any adoration of the fire or other elements: he denied that the doctrine of two coeval principles, supremely good and supremely bad, formed any part of his faith; and he often repeated with emphasis the verses of Firdausi on the prostration of Cyrus and his paternal grandfather before the blazing altar: "Think not that they were adorers

"of fire, for that element was only
 "an exalted object, on the lustre of
 "which they fixed their eyes; they
 "humbled themselves a whole week
 "before God; and, if thy under-
 "standing be ever so little exerted,
 "thou must acknowledge thy dependence on the Being supremely
 "pure." In a story, Sadi, near the close of his beautiful Bûstân, concerning the idol of Sômanât'h, or Mahâdêva, confounds the religion of the Hindus with that of the Gabrs, calling the Brâhmans not only Moghs (which might be justified by a passage in the Mesnavi), but even readers of the Zend and Pâzend. Now, whether this confusion proceeded from real or pretended ignorance, I cannot decide; but am as firmly convinced that the doctrines of the Zend were distinct from those of the Veda, as I am that the religion of the Brâhmans, with whom we converse every day, prevailed in Persia before the accession of Cayumers, whom the Parthians, from respect to his memory, consider as the first of men, although they believe in an universal deluge before his reign.

With the religion of the old Persians their philosophy (or as much as we know of it) was intimately connected; for they were assiduous observers of the luminaries, which they adored and established, according to Mohsan, who confirms, in some degree, the fragments of Berossus, a number of artificial cycles with distinct names, which seem to indicate a knowledge of the period in which the equinoxes appear to revolve: they are said also to have known the most wonderful powers of nature, and thence to have acquired the fame of magicians and enchanters. But I will only detain you with a few remarks on that metaphysical theology which has been professed immemorially by a numerous sect of Persians and Hindus, was carried in part into Greece, and prevails even now among the learned Muselmans, who sometimes avow it

without

without reserve. The modern philosophers of this persuasion are called Sûfis, either from the Greek word for a sage, or from the woollen mantle which they used to wear in some provinces of Persia. Their fundamental tenets are, That nothing exists absolutely but God; that the human soul is an emanation from his essence, and, though divided for a time from its heavenly source, will be finally re-united with it; that the highest possible happiness will arise from its re-union; and that the chief good of mankind, in this transitory world, consists in as perfect an union with the Eternal Spirit as the incumbrances of a mortal frame will allow; that, for this purpose, they should break all connection (or *taalluk*, as they call it) with extrinsic objects, and pass through life without attachments, as a swimmer in the ocean strikes freely without the impediment of clothes; that they should be straight and free as the cypress, whose fruit is hardly perceptible, and not sink under a load like fruit-trees attached to a trellis; that if mere earthly charms have power to influence the soul, the idea of celestial beauty must overwhelm it in extatic delight; that, for want of apt words to express the divine perfections and the ardour of devotion, we must borrow such expressions as approach the nearest to our ideas, and speak of beauty and love in a transcendent and mystical sense; that, like a reed torn from its native bank, like wax separated from its delicious honey, the soul of man bewails its disunion with melancholy music, and sheds burning tears, like the lighted taper, waiting passionately for the moment of its extinction, as a disengagement from earthly trammels, and the means of returning to its Only Beloved.—Such in part (for I omit the minuter and more subtle metaphysics of the Sûfis, which are mentioned in The Dabistân) is the wild and enthusiastic religion of the modern Persian poets, especially of the sweet Hâfiz and the

great Maulavi: such is the system of the Védânti philosophers and best lyric poets of India; and as it was a system of the highest antiquity in both nations, it may be added to the many other proofs of an immemorial affinity between them.

III. On the ancient monuments of Persian sculpture and architecture, we have already made such observations as were sufficient for our purpose; nor will you be surprised at the diversity between the figures at Elephanta, which are manifestly Hindu, and those at Persepolis, which are merely Sabian, if you concur with me in believing, that the Takhti Jemshid was erected after the time of Cayumers, when the Brâhmans had migrated from Irân, and when their intricate mythology had been superseded by the simpler adoration of the planets and of fire.

IV. As to the sciences or arts of the old Persians, I have little to say; and no complete evidence of them is found to exist. Mohsan speaks more than once of ancient verses in the Pahlavî language; and Bahman assured me, that some scanty remains of them had been preserved. Their music and painting, which Nazâmi celebrated, have irrecoverably perished; and in regard to Mânî, the painter and impostor, whose book of drawings called Artang, which he pretended to be divine, is supposed to have been destroyed by the Chinese, in whose dominions he had sought refuge, the whole tale is too modern to throw any light on the questions before us concerning the origin of nations. and the inhabitants of the primitive world.

Thus has it been proved, by clear evidence and plain reasoning, that a powerful monarchy was established in Irân long before the Assyrian, or Pîshdâdi, government; that it was in truth a Hindu monarchy, though if any chuse to call it Cusian, Casdean, or Scythian, we shall not enter into a debate on mere names; that it subsisted many centuries; and that its history has been ingrafted on that

of the Hindus, who founded the monarchies of Ayódhyà and Indraprestha; that the language of the first Persian empire was the mother of the Sanscrit, and consequently of the Zend and Farsi, as well as of Greek, Latin, and Gothic; that the language of the Assyrians was the parent of Chaldaic and Pahlavi; and that the primary Tartarian language also had been current in the same empire; although, as the Tartars had no books, or even letters, we cannot with certainty trace their unpolished and variable idioms.—We discover therefore in Persia, at the earliest dawn of history, the three distinct races of men, whom I described on former occasions as possessors of India, Arabia, Tartary; and whether they were collected in Iran from distant regions, or diverged from it, as from a common center, we shall easily determine by the following considerations.

Let us observe, in the first place, the central position of Iran, which is bounded by Arabia, by Tartary, and by India; whilst Arabia lies contiguous to Iran only, but is remote from Tartary, and divided even from the skirts of India by a considerable gulf; no country, therefore, but Persia, seems likely to have sent forth its colonies to all the kingdoms of Asia. The Bráhmans could never have migrated from India to Iran, because they are expressly forbidden by their oldest existing laws to leave the region which they inhabit at this day: the Arabs have not even a tradition of an emigration into Persia before Mohammed, nor had they indeed any inducement to quit their beautiful and extensive domains: and as to the Tartars, we have no trace in history of their departure

from their plains and forests till the invasion of the Medes, who, according to etymologists, were the sons of Madai; and even they were conducted by princes of an Assyrian family. The three races therefore, whom we have already mentioned (and more than three we have not yet found), migrated from Iran, as from their common country. And thus the Saxon chronicle, I presume from good authority, brings the first inhabitants of Britain from Armenia; while a late very learned writer concludes, after all his laborious researches, that the Goths or Scythians came from Persia; and another contends with great force, that both the Irish and old Britons proceeded severally from the borders of the Caspian; a coincidence of conclusions from different media, by persons wholly unconnected, which could scarce have happened, if they were not grounded on solid principles. We may therefore hold this proposition firmly established, that Iran, or Persia in its largest sense, was the true center of population, of knowledge, of languages, and of arts; which, instead of travelling westward only, as it has been fancifully supposed, or eastward, as might with equal reason have been asserted, were expanded in all directions to all the regions of the world in which the Hindu race had settled under various denominations. But, whether Asia has not produced other races of men distinct from the Hindus, the Arabs, or the Tartars, or whether any apparent diversity may not have sprung from an intermixture of those three in different proportions, must be the subject of a future enquiry.

ESSAY VII.—ON THE PROGRESS OF NAVIGATION.

Portuguese Voyages in the Fifteenth, and Beginning of the Sixteenth Century.

IN 1447, Nuno Tristão advanced sixty leagues beyond Cape Verde, and entered Rio Grande. Alvaro

Fernandez prosecuting the same voyage, went forty leagues beyond Tristão. A variety of voyages were
now

now made to the coast of Africa, to trade for black slaves.

The king of Portugal granted Prince Henry a patent to settle the Azores; and, in 1462, the islands of Cape Verde were discovered by Antonio de Nola, a Genoese, in the service of Portugal.

In 1471, Juan de Santarem and Pedro de Escobar penetrated as far as La Mina, in the fifth degree of latitude, and afterwards to Cape St. Catharine, in $2\frac{1}{2}$ degrees. Ferdinand Po also discovered the island that goes by his name. About the same time the islands of St. Thomas, Anno Bono, and Principe, were discovered.

Being now fully intent on the profit to be derived from the trade, discoveries were not pursued with any great degree of alacrity. However, in 1480, James Cam ran as far along the coast as to the 22d degree of south latitude.

In 1486, Bartholomew Diaz sent out with three ships to discover India. He had the good fortune to discover the southern promontory of Africa, which, from the storms he encountered there, he denominated Cape Tormentoso, but which, from the prospect it afforded of opening the way to India, was, by the king of Portugal, called the Cape of Good Hope.

Anno 1497. King Emanuel, who with the crown of Portugal had inherited the ambition of enlarging his dominions, and the desire of finding a way by sea to the East-Indies, appointed Vasco de Gama, a gentleman of undaunted spirit, admiral of those ships he designed for this expedition, which were only three, and a tender; their names were the St. Gabriel, the St. Raphael and Berrio; the captains Vasco de Gama admiral, Paul de Gama his brother, and Nicholas Nunez, and Gonzalo Nunez of the tender, which was laden with provisions. Gama sailed from Lisbon on the 8th of July, and the first

land he came to after almost five months sail was the bay of St. Helena, where he took some blacks. The 20th of November he sailed thence, and doubled the Cape of Good Hope, and on the 25th touched at the Bay of St. Blas, 60 leagues beyond the aforesaid cape, where he exchanged some merchandise with the natives. Here he took all the provisions out of the tender, and burnt it. On Christmas-day they saw the land, which for that reason they called Terra do Natal, that is, Christmas-Land; then the river they named De los Reyes, that is, of the kings, because discovered on the Feast of the Epiphany; and after that Cape Corrientes, passing 50 leagues beyond Zofala without seeing it, where they went up a river in which were boats with sails made of palm-tree leaves: the people were not so black as those they had seen before, and understood the Arabic character, who said that to the eastward lived people who sailed in vessels like those of the Portuguese. This river Gama called De Bons Sinays, or of Good Tokens, because it put him in hopes of finding what he came in search of. Sailing hence, he again came to an anchor among the islands of St. George opposite to Mozambique, and removing thence anchored again above the town of Mozambique in 14 degrees and a half of south latitude; whence after a short stay, with the assistance of a Moorish pilot, he touched at Quiloa, and Monbaza; and having at Melinda settled a peace with the Moorish king of that place, and taken in a Guzarat pilot, he set sail for India, and crossing that great gulph of 700 leagues in 20 days, anchored two leagues below Calicut on the 20th of May. To this place had Gama discovered 1200 leagues beyond what was known before, drawing a straight line from the river Del Infante, discovered by Bartholomew Diaz, to the port of Calicut, for in sailing

failing about by the coast it is much more. Returning home not far from the coast, he fell in with the islands of Anchediva, signifying in the Indian language five islands, because they are so many; and having had sight of Goa, at a distance, sailed over again to the coast of Africa, and anchored near the town of Magadoxa. At Melinda he was received friendly by the king, but being again under sail, the ship St. Raphaël struck on the shore and was lost, giving her name to those sands: all the men were saved by the other two ships, which parted in a storm near Cabo Verde. Nicholas Coello arrived first at Lisbon, and soon after him Vasco de Gama, having spent in his voyage two years and almost two months. Of 160 men he carried out, only 55 returned home, who were all well rewarded.

Anno 1500. King Emanuel, encouraged by the success of Vasco de Gama, fitted out a fleet of 13 sail under the command of Peter Alvarez Cabral, and in it 1200 men, to gain footing in India. He sailed on the 8th of March, and meeting with violent storms was blown off from the coast of Africa so far, that on Easter Eve the fleet came into a port, which for the safety found in it was called Seguro, and the country at that time Santa Cruz, being the same now known by the name of Brazil, on the south continent of America. Hence the admiral sent back a ship to advertise the king of the accidental new discovery, leaving two Portuguese ashore to enquire into the customs and product of the land. Sailing thence on the 12th of May for the Cape of Good Hope, the fleet was for 20 days in a most dreadful storm, insomuch that the sea swallowed up four ships, and the admiral arrived with only six at Zofala on the 16th of July, and on the 20th at Mozambique; where having refitted, he prosecuted his voyage to Quiloa, and thence to

Melinda, whence the fleet stood over for India, and reached Anchediva on the 24th of August: then coming to Calicut, peace and commerce was there agreed on with Zamorin, or king of Calicut, but was soon broken, and the Portuguese entered into strict amity with the kings of Cochin and Cananor, where they took in their lading and returned to Portugal.

Anno 1501. John de Nova departed from Lisbon with four ships and 400 men, and in his way discovered the island of Conception, in eight degrees of south latitude, and on the east side of Africa that which from him was called the island of John de Nova. At Cananor and Cochin he took in all his lading, destroying many vessels of Calicut, and in his return home found the island of St. Helena in 15 degrees of south latitude, distant 1549 leagues from Goa, and 1100 from Lisbon, being then unpeopled, but since of great advantage to all that use the trade of India.

Anno 1502. The king set out a fleet of 20 sail commanded by the first discoverer of India, Vasco de Gama, whose second voyage this was. No new discoveries were made by him, but only trade secured at Cochin and Cananor, several ships of Calicut taken and destroyed, the king of Quiloa, on the coast of Africa was brought to submit himself to Portugal, and pay tribute; and Vasco de Gama returned home with nine ships richly laden, leaving Vincent Sodre behind with five ships to scour the coasts of India, and secure the factories there.

Anno 1503. Nine ships were sent under three several commanders, Alphonso de Albuquerque, Francis de Albuquerque, and Antony de Saldanha, each of them having three ships. The Albuquerques with permission of the king built a fort at Cochin, burnt some towns, took many ships of Calicut, and then returned richly laden homewards, where

where Alfonso arrived safe with his ships, but Francis and his were never more heard of. Saldanha the third of these commanders, gave his name to a bay short of the Cape of Good Hope, where he endeavoured to water; but it cost the blood of some of his men, and therefore the place was called Aguada de Saldanha, or Saldanha's watering-place. Thence proceeding on his voyage, he obliged the king of Monbaza on the other coast of Africa to accept of peace; and then went to cruize upon the Moors at the mouth of the Red-Sea, which was the post appointed him.

Anno 1504. Finding no good was to be done in India without a considerable force, King Emanuel fitted out 13 ships, the largest that had been yet built in Portugal, and in them 1200 men, all under the command of Lope Soarez, who made no further discoveries, only concluded peace with Zamorin, and returned rich home.

Anno 1505. D. Francisco de Almeyda was sent to India, with the title of viceroy, carrying with him 22 ships, and in them 1500 men, with whom he attacked and took the town of Quiloa on the east coast of Africa, and in about 9 degrees of south latitude, where he built a fort; then burnt Monbaza on the same coast in four degrees, and sailing over to India crested another fort in the island Anchediva, and a third at Gananor on the Malabar coast.

Anno 1506. James Fernandez Pereyra, commander of one of the ships left to cruize upon the mouth of the Red-Sea, returned to Lisbon with the news of his having discovered the island Zocotora, not far distant from the said mouth, and famous for producing the best aloes, from it called Succotrina. In March this year sailed from Lisbon Alfonso de Albuquerque, and Tristan du Cunha, with 13 ships, and 1300 men, the former to command

the trading ships, the latter to cruize on the coast of Arabia: in their passage they had a fight of Cape St. Augustin in Brazil; and standing over from thence for the Cape of Good Hope, Tristan da Cunha ran far away to the south, and discovered the islands which still retain his name. Sailing hence, some discovery was made upon the island of Madagascar, that of Zocotora subdued, and the fleet sailed part for the coast of Arabia, and part for India. In the former Albuquerque took and plundered the town of Calayate, the same he did to Mascate, Soar submitted, and Orfuzam they found abandoned by the inhabitants. This done, Albuquerque sailed away to Ormuz, then first seen by Europeans. This city is seated in an island, at the mouth of the Persian gulph, so barren that it produces nothing but salt and sulphur, but it is one of the greatest marts in those countries. Hence Albuquerque sailed to India, where he served some time under the command of the Viceroy Almeyda, till he was himself made governor of the Portuguese conquests in those parts, which was in the year 1510, during which time the whole business was to settle trade, build forts, and erect factories along the coasts already known, that is, all the east side of Africa, the shores of Arabia, Persia, Guzarat, Cambaya, Decan, Canara, and Malabar; and indeed they had employment enough, if well followed, to have held them many more years. But avarice and ambition know no bounds; the Portuguese had not yet passed Cape Comorin, the utmost extent of the Malabar coast, and therefore,

Anno 1510, James Lopez de Sequeira was sent from Lisbon with orders to sail as far as Malaca: this is a city seated on that peninsula, formerly called Aurea Chersonesus, running out into the Indian sea from the main land, to which it is joined by a narrow neck of land on the north, and on the south separated

rated from the island of Sumatra by a small strait or channel: Malaca was at that time the greatest emporium of all the further India. Thither Sequeira was sent to settle trade, or rather to discover what advantages might be gained; but the Moors who watched to destroy him, having failed of their design to murder him at an entertainment, contrived to get thirty of his men ashore on pretence of loading spice, and then falling on them and the ships at the same time killed eight Portuguese, took sixty, and the ships with difficulty got away. However here we have Malaca discovered, and a way open to all the further parts of India. In his way to Malaca, Sequeira made peace with the kings of Achem, Pedir and Pacem, all at that time small princes at the north-west end of the island Sumatra. Whilst Sequeira was thus employed, Albuquerque assaults the famous city of Goa, seated in a small island on the coast of Decan, and taking the inhabitants unprovided, made himself master of it, but enjoyed it not long; for Hildacan the former owner returning with 60000 men, drove him out of it after a siege of 20 days: yet the next year he again took it by force, and it has ever since continued in the hands of the Portuguese, and been the metropolis of all their dominions in the east, being made an archbishop's see, and the residence of the viceroy who has the

government of all the conquests in those parts. Albuquerque flushed with this success, as soon as he had settled all safe at Goa, sailed for Malaca with 1400 fighting men in 19 ships. By the way he took five ships, and at his arrival on the coast of Sumatra was complimented by the kings of Pedir and Pacem. It is not unworthy relating in this place, that in one of the ships taken at this time was found Nehoadia Beuea, one of the chief contrivers of the treachery against Sequeira; and though he had received several mortal wounds, yet not one drop of blood came from him; but as soon as a bracelet of bone was taken off his arm, the blood gushed out at all parts. The Indians said this was the bone of a beast called cabis, which some will have to be found in Siam, and others in the island of Java, which has this strange virtue, but none has ever been found since. This being looked upon as a great treasure, was sent by Albuquerque to the king of Portugal, but the ship it went in was cast away, so that we have lost the rarity, if it be true there ever was any such. Albuquerque sailing over to Malaca had the Portuguese that had been taken from Sequeira delivered; but that not being all he came for, he landed his men, and at the second assault made himself master of the city, killing or driving out all the Moors, and peopling it again with strangers and Malays,

ON THE OFFICES OF THANE AND ABTHANE.

BY ROBERT RIDDEL, ESQ.

From the Transactions of the Society of Antiquaries of Scotland.

A Thane, which signifies a servant, held, under the king, a jurisdiction over a district called a Thanedom, and afterwards a sheriffdom, or county. His office was to give judgement in all civil and criminal cases within his Thanedom.

Upon perusing the claims of hereditary jurisdictions in Scotland,

when they were annexed to the crown, in 1748, I find, that in the year 1405, a precept was granted by Robert Duke of Albany, regent of Scotland, for infesting Donald, Thane of Calder, in his Thanedom, as heir at law to Andrew, Thane of Calder,

Calder, his father, to whom he had previously been served heir, and returned in the heritable offices of sheriff (or Thane) of Nairn, and constable of the castle of Nairn. He was accordingly seised of his lands and Thanedom, and the seisin is produced as a voucher in the year 1748. to prove the fact. By this it appears, that the Thanes of Calder exercised a jurisdiction over the Thanedom, and afterwards sheriffdom, of Nairn.

The title of Earl, (an English dignity, derived from the Saxon word *Ehre*, signifying honour, and the monosyllable *all*) was introduced in Scotland, first, by Malcolm Canmore, and gained ground, to the prejudice of the more ancient title of Thane. The title of Earl was often granted without any jurisdiction annexed to it, but the dignity of Thane, never. And this, perhaps, was the chief reason for its total disuse in the year 1476, when William, Thane of Calder, had his Thanedom erected into a free barony and regality. He was the last Thane in Scotland; for the crown, to add to its influence, then abolished this dignity.

As to the very ancient title of Abthane, I am more at a loss to point out the nature and extent of its jurisdiction. I find Crinan, Abthane of Dull and the western isles. — He married Beatrix, the eldest daughter of Malcolm II. and was father to Duncan I. king of Scotland; he was considered as the most powerful man in the kingdom,

It is generally thought that he exercised the office of chief justiciar over the kingdom, perhaps in a similar manner as it was exercised by the family of Argyll, so late as the year 1628, when the Lord Lorn, heritable justiciar of all Scotland, did resign that high office to King Charles I.

In addition to the office of chief justiciar, Crinan, it is thought, was the king's steward over the crown lands in the western isles, as well as a large district on the main land of Scotland, called Dull.

What the extent was of the crown's patrimony, called Dull, I do not know; but, in the claim of Sir Robert Menzies for the lordship of Apin O'Dull, in 1748, the Lord Advocate, in his reply, says, that the lordship of Apin O'Dull was anciently a part of the patrimony of the crown. And it is natural to suppose that it was part of Crinan's Abthanedom.

The lordship of Apin O'Dull, as claimed by Sir Robert Menzies, comprehends the lands situated in the parishes of Weem and Dull, and Logierait.

Crinan was the last Abthane in Scotland; for his son, Duncan I. appointed Bancho, Thane of Lochaber, as his Dapifer or Senescalus; and Malcolm Canmore appointed Walter to the office of Dapifer *domini regis*, which became hereditary in his family, until they succeeded to the throne, in the person of Robert II.

ACCOUNT OF THE CITY OF MECCA. AND THE PILGRIMAGE OF THE MUSSULMANS,

BY M. NIEBUHR.

THIS city is situate in a dry and barren tract of country, a full day's journey from Jidda. A few leagues beyond it, nearer the highlands, however, abundance of excellent fruits is to be found. In the summer months, the heat is excessive at Mecca; and, to avoid and moderate it as much as possible, the inhabitants carefully shut their windows and water the streets. There have been instances of persons suffocated in the middle of the streets by the burning wind called Samoun or Samiel.

As a great part of the first nobility

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in Hedjas live at Mecca, the buildings are better here than in any other city in Arabia. Among its elegant edifices, the most remarkable is the famous Kaba, or house of God, which was held in high veneration by the Arabians, even before the days of Mahomet.

My curiosity would have led me to see this sacred and singular structure, but no Christian dares enter Mecca. Not that there is any such express prohibition in the laws of Mahomet, or that liberal-minded Mahometans could be offended; but the prejudices of the people in general, with respect to the sanctity of the place, make them think that it would be profaned by the feet of infidel Christians. They even persuade themselves, that Christians are restrained from approaching it by a supernatural power. They tell of an infidel, who audaciously advanced within sight of Mecca, but was there attacked by all the dogs of the city, and was so struck with the miracle, and with the august aspect of the Kaba, that he immediately became Mussulman.

There is therefore ground for the presumption, that all the Christians of Europe, who describe Mecca as eye-witnesses, have been renegadoes who have escaped from Turkey. A recent example confirms this suspicion. Upon a promise of being suffered to adhere to his religion, a French surgeon was prevailed with to attend the Emir Hadgi to Mecca, in the quality of his physician. But he had not proceeded far, when he was forced to submit to circumcision, and then suffered to continue his journey.

Although the Mahometans permit not Europeans to visit Mecca, they make no difficulty of describing the Kaba to them. I even obtained at Kahira a drawing of that holy place, which I had afterwards an opportunity of correcting, from another draught by a Turkish painter. This painter gained his livelihood by

making such draughts of the Kaba, and selling them to pilgrims.

To judge from those designs, and from the relations of many Mussulmans of sufficient veracity, the Kaba must be an awkward shapeless building; a sort of square tower it is, covered on the top with a piece of black gold-embroidered silk stuff. This stuff is wrought at Kahira, and changed every year at the expense of the Turkish sultan. The gutters upon this building are of pure gold.

What seems to be most magnificent about this sacred edifice, is the arcades around the square in which the Kaba stands. They speak, in terms of high admiration, of a vast number of lamps and candlesticks of gold and silver with which those arcades are illuminated. However, even by those accounts, in which the truth is apparently exaggerated, the riches of the Kaba are far from equal in value to what is displayed in some catholic churches in Europe.

In the Kaba is particularly one singular relic, which is regarded with extreme veneration. This is the famous black stone, said to have been brought by the angel Gabriel in order to the construction of that edifice. The stone, according to the account of the clergy, was, at first, of a bright white colour, so as even to dazzle the eyes at the distance of four days journey; but it wept so long, and so abundantly for the sins of mankind, that it became at length opaque, and at last absolutely black. This stone, of so compassionate a character, every Mussulman must kiss, or at least touch, every time he goes round the Kaba. Neither the stone of Abraham, nor that of Ismael, receives the same honours; pilgrims are not obliged either to visit or to kiss them.

The Arabs venerate the Kaba, as having been built by Abraham, and having been his house of prayer.—Within the same inclosure is the well of Zemzem, valued for the excellence of its water, and no less for

its miraculous origin. Hagar, when banished by her master, set little Ismael down here, while she should find some water to quench his thirst. Returning, after an unsuccessful search, she was surprised to see a spring bursting up from the ground between the child's legs. That spring is the present well of Zemzem.

Another ornament of the Kaba, is a row of metal pillars surrounding it. These pillars are joined by chains, on which hang a vast number of silver lamps. The porticos or arcades above-mentioned are designed to protect the pilgrims from the torrid heat of the day. They answer likewise another purpose; for the merchants, of whom great numbers accompany the caravans, expose their wares for sale under those arcades.

The Mahometans have such high ideas of the sanctity of Mecca, that they suppose it to extend even to the environs of the city. Its territory is reputed sacred to a certain distance round, which is indicated by marks set for this purpose. Every caravan find one of those marks on their way, which warns the pilgrims to put on the modest garb which it becomes them to wear on that sacred ground.

Every Mussulman, it is well known, is obliged, once in his life, to visit Mecca, and perform acts of devotion in the sacred places. If this law were strictly observed, the concourse of pilgrims would be immense; nor could the city contain such crowds from every country in which the Mahometan religion has been introduced. It may be presumed, therefore, that none but such as are more than ordinarily devout discharge this duty.

Those indeed, whose circumstances do not admit of their undertaking so distant a journey, are allowed to hire a person to perform it for them. But a pilgrim, in this character, can act for no more than one person at the same time; and, to prevent im-

posture, he must bring back a formal attestation from an Imam in Mecca-bearing, that he has actually performed the appointed devotional exercises in the holy places, in the name of such a person, living or dead; for, even after the death of a man, who, during his life, neglected the fulfilling of this point of the law, the duty may still be discharged in his name, and for his benefit. I have sometimes met with pilgrims by profession, who had been ill paid by their employers, and were obliged to ask alms.

Few as the caravans are, in proportion to the numbers of the Mussulmans, even those few are composed, in great part, of persons who go upon other motives than devotion; such as merchants, who think this the safest opportunity for the conveyance of their goods, and the most favourable for the sale of them; purveyors of all sorts, who furnish the pilgrims with necessaries; and soldiers, paid by the caravan for escorting them. From this it happens, that many persons have seen Mecca several times, without ever visiting it upon any but views of interest.

The most considerable of these caravans is that of Syria, commanded by the Pacha of Damascus. At a certain distance from Mecca, it joins that from Egypt, which is the second in numbers, and is conducted by a Bey, who takes the title of Emir Hadgi. A third comes from Yemen; and a fourth, still smaller in numbers, from the country of Lachsa. A few pilgrims come by the Red Sea, and from the Arabian settlements on the coast of Africa: The Persians join that which is from Bagdad, and is conducted by the Pacha. His post is lucrative; for he squeezes large sums from the Persian heretics.

When giving an account of what I saw on board our vessel, in the passage between Suez and Jidda, I had occasion to speak of the Ihram, and of the place where pilgrims are

obliged to assume the garb of humility. I may add, that they must proceed without delay to Mecca, as soon as they arrive on the border of the sacred territory. A Greek renegado, who had come in our company from Suez, was disposed to rest for some time at Jidda; but the reproaches which he found thrown out upon him, for such an instance of indifference about the object of his journey, obliged him to set off for Mecca sooner than was favourable to the state of his business in Jidda.

Besides, it is truly advantageous to a pilgrim to haste forward to the holy places. If he has not been present from the commencement, at the celebration of all the ceremonies, and performed every appointed act

of devotion, he cannot obtain the title of Hadgi; an honour much coveted by the Turks, because it confers substantial privileges, and commands respect to those who bear it. The rarity of this title, in Mahometan countries, is a proof how negligently the law enjoining pilgrimage is observed.

A similar custom prevails among the Christians in the East, who also make much ado about the title of Hadgi or Mokdasi, which they gave to pilgrims of their communion. In order to acquire this title, it is not enough for a person to go in pilgrimage to Jerusalem; he must spend the season of the passover in that city, and assist at all the ceremonies in the holy weeks.

AN ACCOUNT OF A STAG'S HEAD AND HORNS, FOUND AT ALPORT, IN THE COUNTY OF DERBY.

In a Letter from the Rev. Robert Barker, B. D.

From the Philosophical Transactions of the Royal Society of London.

ABOUT five years ago, some men working in a quarry of that kind of stone which in this part of the country we call *tuft*,* at about five or six feet below the surface, in a very solid part of the rock, met with several fragments of the horns and bones of one or different animals. Amongst the rest, out of a large piece of the rock, which they got entire, there appeared the tips of three or four horns, projecting a few inches from it, and the scapula of some animal adhering to the outside of it. A friend of mine, to whom the quarry belongs, sent the piece of the rock to me in the state they got it, in which I let it remain for some time. But suspecting that they might be tips of the horns of some head enclosed in the lump, I determined to gratify my curiosity by clearing away the stone from the horns. On doing which I found

that the lump contained a very large stag's head, with two antlers upon each horn, in very perfect preservation, enclosed in it.

Though the horns are so much larger than those of any stag I have ever seen, yet, from the sutures in the skull appearing very distinct in it, one would suppose that it was not the head of a very old animal. I have one of the horns nearly entire, and the greatest part of the other, but so broken in the getting out of the rock, that one part will not join to the other, as the parts of the other horn do. The horns are of that species which park-keepers in this part of the country call *throstle nest horns*, from the peculiar formation of the upper part of them, which is branched out into a number of short antlers which form an hollow about large enough to contain a thrush's nest. I send you the dimensions

* *Tuft* is a stone formed by the deposit left by water passing through beds of sticks, roots, vegetables, &c. of which there is a large stratum at Matlock-Bath, in this county.

Account of a Stag's Head and Horns, found in Derbyshire. 197

sions of the different parts of them, compared, with the horns of the same species of a large stag, which have probably hung in the place from whence I procured them two or three or perhaps more centuries; and with another pair of horns of a different kind, which are terminated by one single pointed antler, and which were the horns of a seven-year-old stag.

The river Larkell runs down the valley, and part of it falls into the quarry where these horns were found, the water of which has not the property of incrusting any bodies it passes through. It is therefore probable, that the animal to which these horns belonged was washed into the place where they were found, at the time of some of those convulsions which contributed to raise this part of the island out of the sea. Besides this complete head, I have several pieces of horns, bones, (particularly the scapula I mentioned above) and several vertebræ of the back, found in the same quarry;

some, if not all, of them probably belonging to the animal whose head is in my possession.

Dimensions of the horns found at Alport.

| | Ft. | In. |
|---|------------------|-----------------|
| Circumference at their insertion into the corona, - | 0 | 9 $\frac{7}{8}$ |
| Length of the lowest antler, 1 | 2 | |
| Length of the second ditto, 0 | 11 $\frac{1}{2}$ | |
| Length of the third ditto, - | 1 | 1 $\frac{1}{2}$ |
| Length of the horn, - - | 3 | 3 $\frac{1}{2}$ |

Dimensions of a large pair of throe-neck horns.

| | | |
|---|------------------|------------------|
| Circumference at their insertion into the corona, - | 0 | 7 |
| Length of the lowest antler, 1 | 0 | |
| Length of the second ditto, 0 | 10 $\frac{5}{8}$ | |
| Length of the third ditto, - | 0 | 11 $\frac{1}{2}$ |
| Length of the horn, - - | 2 | 7 $\frac{1}{2}$ |

Dimensions of the horns of a stag seven years old.

| | | |
|---|----|-----------------|
| Circumference at their insertion into the corona, - | 0 | 5 $\frac{1}{2}$ |
| Length of the lowest antler, 0 | 9 | |
| Length of the second ditto, 0 | 10 | |
| Length of the third ditto, - | 0 | 10 |
| Length of the horn, - - | 2 | 8 $\frac{3}{4}$ |

OBSERVATIONS ON THE LATE CONTINUANCE OF THE USE OF TORTURE IN GREAT BRITAIN.

In a Letter from George Chalmers, Esq. F.R. and A.SS.

From the Transactions of the Society of Antiquaries of London.

Office for Trade, Whitehall, March, 1791.

I Presumed to think, that whatever had a tendency to trace the modes of our government, or to mark the improvement of our freedom, would not be deemed by you altogether unworthy of your learned curiosity. And I was thus induced to communicate to you a copy of a warrant of the privy council, as late as 1620, for using torture on a person, who was suspected of treason; which, as a link connecting former practice with subsequent disuse, may be regarded as an instructive document.

The following is an authentic copy from the record.

"To the Lieutenant of the Tower of London.

"Whereas Samuel Peacock was

"heretofore committed prisoner to the Marshalsea, and that now it is thought fit upon vehement suspicion of high treason against his majesty's sacred person to remove him thence, and to commit him to the Tower; these shall be therefore to will and require you to repair to the prison of the Marshalsea, and there to receive from the keeper of that house the person of the said Samuel Peacock, and him safely to convey under your custody unto the Tower of London, where you are to keep him close prisoner until further order. And whereas we have thought meet to nominate and appoint Sir Henry Montague, knt. Lord Chief Justice

"Justice of the King's Bench, Sir Thomas Coventry, knt. his majesty's Solicitor General, and yourself, to examine the said Peacock, for the better discovery of the truth of this treason; this shall be likewise to authorize you, or any two of you, whereof yourself to be one, to examine the said Peacock from time to time, and to put him, as there shall be cause, for the better manifestation of the truth, to the torture, either of the manacles, or the rack; for which this shall be your warrant. And so, &c. The 19th of February, 1619."

Allow me to subjoin a few observations. The Lieutenant of the Tower, who was thus entrusted, was Sir Allan Apsley. The privy counsellors, who directed that measure, and signed that warrant, were the Lord Chancellor Bacon, the Earl of Worcester, who was then Lord Privy Seal, the Earl of Arundell, the Lord Carew, Lord Digby, Mr. Secretary Naunton, and Sir Edward Coke, who, after he had ceased to be chief justice, as a privy counsellor sometimes sanctioned practices, which he lived to condemn as a writer.

But the silence of the record does not allow us to suppose, that the king was either present, or knew of this transaction.

When Sir Edward Coke published his second Institute, he gave it as his opinion, that torture was prohibited by the following words of the great charter: "*Nullus liber homo aliquo modo destruatur nisi per legale iudicium parium suorum, aut per legem terrae.*" Nevertheless I fear, that if our criminal proceedings, from that great epoch to the accession of the Tudor family, were searched with malicious diligence, many instances of torture would be found, though Magna Charta was, meanwhile, confirmed by several statutes. During the reigns of the Tudors, torture was often used upon slight occasions. Lord Bacon relates of Queen Elizabeth, that when

she could not be persuaded that a book was really written by the person whose name it bore, she said with great indignation, that she would have him racked, to produce his author. I replied, "Nay, madam, he is a doctor, never rack his person, rack his style; let him have pen, ink, and paper, and help of books, and be enjoined to continue his story, and I will undertake by collating the styles, to judge whether he were the author." The rack was shewn to Guy Fawkes on his examination, as King James himself relates. Torture was used on Peacock in 1620, as the warrant before-mentioned evinces. When Felton assassinated Buckingham in 1628, and the question was proposed for discovering his accomplices, the judges declared, that consistent with law torture could not be used, as Rushworth has recorded.

Such was the former practice; and such the happy disuse of torture in England! Yet, in Scotland, the rack continued to terrify and debase the people for ages afterwards. Sir George Mackenzie has a whole chapter *Of Torture*; shewing that the privy council, or the supreme judges, could only use the rack; how those were punished who insisted torture unjustly; and who were the persons that the law exempted: and he insists, that all lawyers were of opinion, that even after sentence criminals might be tortured, for knowing their accomplices. Yet, he shews incidentally, that though the practice of torture continued in Scotland till the Revolution, yet the privy council refused, in 1666, to order the Covenanters to be racked after condemnation; assigning as a reason, "*Nam post condemnationem, iudices functi sunt officio.*" The learned Lord Stair confirms what Sir George Mackenzie had thus laid down before him.

It is very remarkable, that when the parliament of Scotland framed their claim of right, in April 1689, they only declared, that the using torture,

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torture, without evidence, or in ordinary crimes, is contrary to law. It requires no elaborate commentary to prove, that when there was evidence of extraordinary crimes, torture might still be lawfully used in Scotland subsequent to the Revolution. It was the union, and the salutary spirit which that happy measure brought with it, that freed Scotland from the danger and reproach of using torture in any case. And it was the act of the British parliament which was passed, in 1708, for improving the union of the two

kingdoms, that put an end to torture, by enacting, among other favourable regulations, that no person accused of any crime in Scotland shall be liable to torture.

Such are the observations which hastily occurred to me on perusing the before recited warrant. If you should think that document and those observations would be acceptable to the Society of Antiquaries, you will be so good as to present them, in the manner most respectful to the members, and most agreeable to yourself.

OBSERVATIONS ON VITRIFIED FORTIFICATIONS IN GALLOWAY.

BY ROBERT RIDDELL, ESQ. F.A.S.

From the Same.

THE ingenious Mr. Williams, mineral engineer, having discovered in the Highlands of Scotland some singular remains which he called vitrified forts, and having described in a Series of Letters those at the hill of Knockfarrel, at the hill of Craig Phadrick, at the hill of Dun-Evan, at Castle Finlay, and at the castle hill of Fin-avon, this publication very much engaged the attention of the curious in research. Along with it was published a description of Craig-Phadrick, by Mr. Wate, engineer at Birmingham, and a letter from Dr. Black, professor of chemistry, to Mr. Williams.

Many sensible enquirers were much puzzled, whether to consider these appearances as the work of man alone, or as volcanic remains, which a rude ferocious people had taken the advantage of to form a strong and permanent place of refuge from an equally barbarous foe. While many judicious antiquaries remained sceptical upon this curious subject, the learned Alexander Frazer Tytler, Esq. published in the second volume of the Edinburgh Philosophical Transactions, a most satisfac-

tory and elaborate paper on some extraordinary structures upon the tops of hills in the Highlands, with remarks on the progress of the arts amongst the ancient inhabitants of that country. And in this account, he accurately described Craig-Phadrick, which he seems to have surveyed in a very minute manner.

Having now no doubt of the existence of these curious remains, and that the probability was greatly in favour of their being the work of man, without the aid of volcanic craters, I began to make many enquiries, whether any such remains existed in Galloway: and I very soon obtained information of two; The Moat of the Mark, in the barony of Barclay, in the parish of Colvend; and Castle Gower, in the adjacent parish of Baillie.

At my request, two different gentlemen went and examined them, from whose reports I found them to be very similar to those described in the Highlands. I then requested a neighbouring clergyman to go to the one on Colvend, and transmit me the best account of it he possibly could. In consequence of which he

he went, and sent me the following account, along with several specimens of the vitrified matter.

"Sir,

"With this you will receive some specimens of the vitrified fort. It is impossible, at present, for me to give you any particular account of it. It is full of rubbish, and surrounded with standing corn. It would take a man one day at least to clear it, and this cannot be done till after harvest. It resembles in form a child's cradle, and would be worth the trouble of clearing out when the crop is taken off the ground."

A gentleman in the neighbourhood has also sent me some specimens of the coloured vitrified fort, and informed me that the area was of an oblong form, and that in it was discovered a pile or heap of stones, of the form and size of a goose egg each (one of which was sent me), and I apprehend they had been gathered upon the shore, which is contiguous, and piled up here for the purpose of slinging or throwing with a balista, at an approaching enemy. I very much wished that Capt. Grose should have seen these forts when he was in Scotland last summer; but the difficulty of approaching them in a wheel-carriage prevented it. I could wish much that a ground plan, section, and perspective view were taken of each. Galloway would amply repay a judicious antiquary who was a draftsman, for the trouble of investigating the antiquities of this, almost as yet undescribed country. Capt. Grose has given views of many of its

monastic ruins, as well as some of its baronial seats, and he has caused to be engraved that very singular curiosity in the Glen kenns, called the Laggan stone; which certainly was a druidical rock idol. This huge rock is situated in the wildest spot almost to be seen; many miles from an house, and the road almost inaccessible. It rests on two points, and the light shines through it; and though a child may make it move, it would require gunpowder to raise it from its seat. I have heard of many more druidical remains in Galloway, which only want a Borlase to explore them. Mr. Gordon, the steward depute of Galloway, wrote me concerning a fine cromlech, something like that in Kent, mentioned by Dr. Borlase. —The fine rides and picturesque scenery to be met with, along the margin of Loch Kenn (a fresh-water lake, eighteen Scots miles in length) would much gratify any person of taste visiting the lakes in Cumberland and Westmoreland, and would afford full compensation for the additional trouble of continuing their journey so far.

Kenmore Castle, formerly the residence of the Galwegian Reguli, and afterwards of John Balliol, some time king of Scotland, stands at the head of Loch Kenn, commanding a most extensive and romantic prospect: two views of it are engraved in Captain Grose's *Antiquities of Scotland*.

If you think this long letter worthy of the attention of the Society of Antiquaries of London, please to present it to them from me.

THOUGHTS ON THE FOUNDERING OF SHIPS.

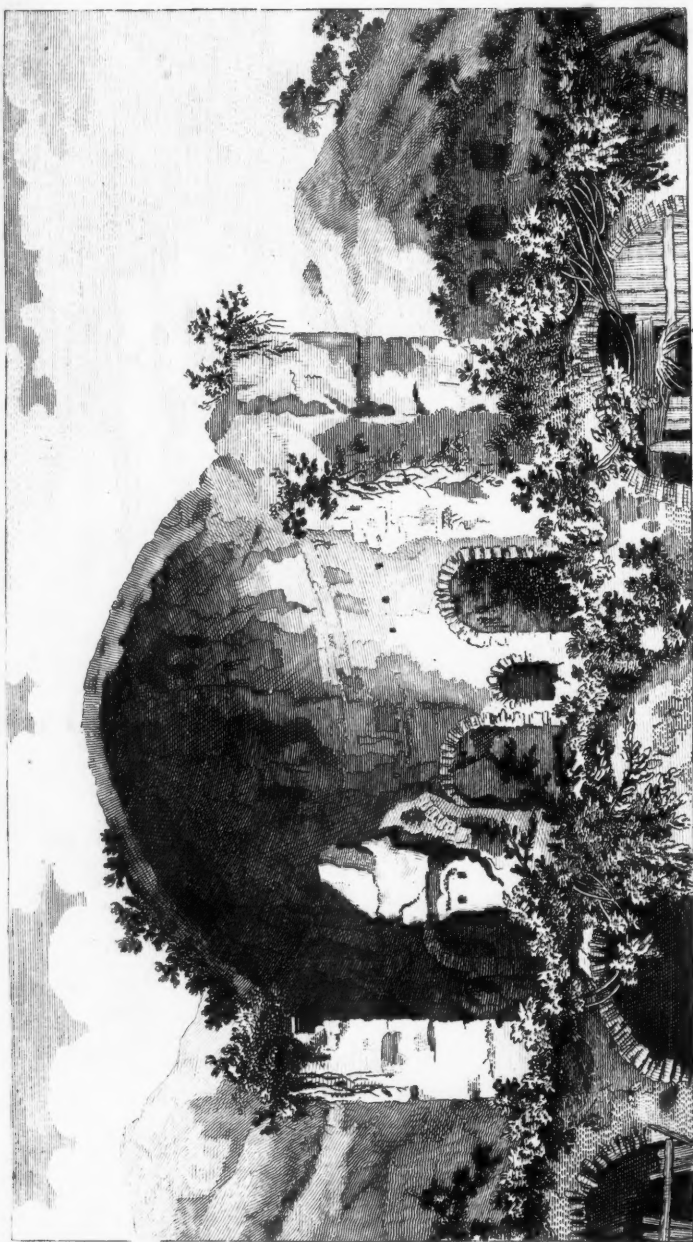
IN reading Dr. Franklin's letters, I found he had treated very ingeniously on this subject: but I think he did not give as full directions, as, perhaps, he would have done, had he been particularly treating on that subject alone: therefore, I have thought it not amiss to add some

thoughts of my own to those of Dr. Franklin, and offer them to the public. Let us first consider the principle, on which the ship floats on the water, which is simply this, that air is lighter than water. Thus if you fill any vessel, such as a cask, full of air, and make it tight, it will

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float on the top of the water, and carry with it a weight exactly equal to the difference of the weight of air in the cask, and the same cask full of water, deducting for the weight of the cask itself. Thus a ship will carry just as much weight as the difference between the weight of the air contained in said ship below the surface of the water, and the weight of so much water, deducting the weight of the ship and ballast. A captain who perceives his ship at sea spring a leak, in a desperate manner, so as to gain fast on his pumps, should, in the first place, start all his casks full of any liquid, that he can get at in the lower tiers, and as fast as they can empty, or the water increaseth so that they will empty no more, stop them tight again, and throw overboard only such things as will of themselves sink, carefully retaining every thing that will float on the water, for they may at last save the ship. If the case still seem desperate, empty every cask that can be made tight, and put them in the hold, and contrive to force them under water, and keep them there by props from the deck: this will still lessen the pressure, and the water will come in slower, as it rises higher in the hold, and covers more of the empty casks. Every wooden thing that can any way be spared, must be put in the

hold, and forced under water, by props, not by weights, for this would destroy the effect. Even in case of great extremity, cut down the masts, and cut them very small, with every thing above, and force them into the hold, cabin, and scutles, or any where, so that they can be kept under water. The salt provisions, water, &c. that will be necessary to be kept for use, should be first of all brought upon deck, and last of all be put into the hold or any where else, so that they will be immersed in the water, and can be got at for use. I am of the opinion that few ships that put to sea, would sink, after every thing being done as above directed, although half their bottoms were beat out. Let not the mariner despair in such cases, at seeing the water gain very fast on his pumps—but consider, as the vessel fills, the pressure lessens, and the water comes in slower, and the pumps will discharge it much faster, as it will not be so far to hoist as at the beginning. This is certainly a subject worthy the attention of the wise and great, if we consider how much property and how many lives are lost for want of such knowledge. If these hints should be the means of stirring a more able hand to take up the subject, and to the saving of any, it will reward the writer.

OF THE RUINS OF THE TEMPLE OF VENUS.

• WITH A VIEW OF THE SAME.

THE beautiful remains exhibited in the annexed plate, are the ruins of a temple, dedicated to Venus, and situated between Baïæ and Puzzuoli, on the border of the gulph of Baïæ. This goddess has been

worshipped under a variety of appellations, but in which of them in this temple, we are not able to determine. From the remains now to be seen, it appears to have been a beautiful structure.

A DESCRIPTION OF THE WESTERN HEBRIDES.

BY THE REV. JOHN LANE BUCHANAN, A.M.

THIS great ridge of islands runs in a parallel line with the main land of Scotland, from Barrahead, the southernmost point of the

island distinguished by that name, to Nish, the northern point of Lewis, about 180 miles in extent; and, in breadth, from 5 miles to 20.

The whole of this vast ridge of isles, which is fully stocked with inhabitants, is divided into eight parishes: in which there are, besides the parish churches, three stations for clerical missionaries supported by the royal bounty.

The western sides of Barra and Uist are flat and sandy: the eastern, mountainous, and full of mosses and rugged rocks. The inland parts are interspersed with fresh-water lakes, and these plentifully stocked with fish. There are several small rivers, in the mouths of which there is plenty of salmon, falling for the most part into the western seas.

The lesser islands of Boreray, Berneray, Pabbay, Ensay, and Cailegray, are for the most part, covered with shelly-sand, which, towards the shores, is drifted by the winds into great hills. Even in these small isles, there are fresh-water lakes, full of fish.

The Long Island, comprehending Lewis and Harris, is in length, from north to south, about 90 miles. Harris the Southern is divided from Lewis the Northern by a tremendous ridge of very high mountains, abounding with deer, which until the game laws were vigorously enforced by the proprietor, were considered as common property. The whole face of Harris is singularly rugged and forbidding, being surrounded and intersected with rocks, marshes, mountains, hills of shelly sand; and lashed and stunned on the west and north with the tremendous roar of the fierce Atlantic Ocean. In this island there are several fresh-water lakes, as well as considerable rivers, stored with trout and salmon.

The east side of Lewis consists in rocks, mountains, marshes, and lakes, from four miles to ten in length; but from Stornaway by Graish, to the northern extremity, it is, on the whole, though here and there interspersed with hills, both beautiful and fertile. Here the soil

is either pure moss, or moss intermixed with sand and earth, or a mixture of sand and earth without any moss. It produces plentiful crops of barley and potatoes, and in some parts, of oats and rye.— This part of Lewis is passable for foot as well as horsemen. But in most places the least vestige of a tract or path is not to be discerned: so that, what little intercourse takes place in this rugged island, is carried on by means of boats, on the rivers, lakes, and morasses when covered by water. Near the coast of Lewis and Harris lie the two Berneras, composed of moss and sand, and several smaller islands of the same kind of soil, as Pabbay-scarpe, Taransay, Haigear, &c, all of them fertile, especially, as throughout the whole of the Hebrides, and other countries, when manured with sea vegetables or weeds.

The whole west side of Uist, being plain and sandy, is extremely pleasant to ride through; but attended with danger to strangers and such as are overtaken by liquor; on account of fords over which the sea flows from east to west so rapidly, and which are at the same time of such extent, that an active horse or footman will hardly gain the further side, before the tide has filled up some one or other of the many small hollow channels of rivulets he has to cross.

Benbecula, or Nun-toun, the seat of Clanronald, becomes an island twice in 24 hours: and those immense fords resemble large seas over which considerable vessels, at certain seasons, may sail with safety. The whole of this country is unfavourable to wood of almost all kinds, which creeps along the earth: as the juniper, thorns, and all kinds of natural brush-wood, mountain-ash, wild vines, hyssop, nay, even apple and pear, and plumb trees, with gooseberry and currant bushes, though surrounded by high garden walls, must keep their heads below; and

and fruits seldom arrive at perfection, though tenderly cultivated and secured from storms.

All kinds of greens or garden roots, used over Britain, are planted in gentlemen's gardens, and some of them with success. In Uist there is a kind of natural kail, or colewort, called morran, that grows by the sea-side: with long gras called bent, used in making sacks, ropes, and other implements of husbandry. There is also another root called rue, that the common people once used for dying woollen yarn red; but strictly prohibited of late, for fear of making a passage for the wind to blow away the sand, and disfigure the face of the fields. A nourishing root is commonly dug up by the poor, in time of scarcity, out of the arable lands, called brisgean, or wild sherratt, and when boiled, answers the purpose of bread or potatoes: they are also prohibited from this as much as possible. Digging or opening the lands for these roots exposes the field to be blown away by the drift. Here are carmyle roots, wild carrots, baldmony, hemlock, heath, rushes, strawberries, blackberries, cranberries, juniperberries, and several other wild fruits.

But no broom, whins, or thorns, will thrive here. There are plenty of peats and turf for fire over all the isles.

The species of land and sea fowls over all this country are too many to be mentioned.

A species of robbery, equally singular and cruel, was lately practised in this country very commonly, and sometimes at this day, in which the eagles are the principal actors. The thieves, coming upon the eaglets in their nests, in the absence of their dams, sow up the extremity of the great gut: so that the poor creatures, tortured by obstructions, express their sense of pain in frequent and loud screams. The eagle, imagining their cries to proceed from hunger, is unwearied in the work of bringing in fresh prey, to satisfy, as he thinks, their craving appetites. But all that spoil is carried home by the thieves at night, when they come to give a momentary relief to the eaglet, for the purpose of prolonging, for their own base ends, their miserable existence. This infernal practice is now wearing fast away, being strictly watched by the gentlemen, and severely punished. Mr. Mackenzie, for every eagle killed in Lewis, gives half a crown. One of those large eagles was taken in the Isle of Herries, at Tarbart, together with a large turbot, in which the animal had fastened its talons, when asleep, at the surface of the water, so as not to be able to disengage them. The eagle, with his large wings expanded like sails, drove before the wind, into the harbour, where he was taken alive; his feet being entangled in the turbot by the country people.

TYPOGRAPHICAL DESCRIPTIONS OF TOWNS NEAR THE SEAT OF WAR.

DUNKIRK, i. e. a church on a down or sandy hill, in French Dunquerque, a town of French Flanders, on the Colne, which here falls into the English channel. It is the most easterly harbour on that side the French dominions, next Great Britain, and is a bailiwick, subject to the provincial council of Artois. The principal

buildings are, the town-house, in which is a public library; the exchange, opposite the town-house; the barracks, the armoury, the ropewalk, the magazine for naval stores, the park of artillery, and the royal hospitals; besides which are the church of St. Eloy, with fifteen chapels round it; the church and college lately belonging to the Je-

suits, four convents, and five nunneries. It was taken from the Spaniards by the French in 1558, but they re-took it soon after. Its inhabitants greatly annoyed the Dutch from 1591 to 1636.

In 1646 and 1658 it was taken by the French; and in the latter year it was ceded to the English, in consideration of their services in assisting them against Spain. But in 1662, king Charles II. sold it to the French for 218,750*l.* upon which Mardyke, and the other neighbouring villages ceded by the English, came into the possession of Lewis XIV. who, upon this, very considerably improved and enlarged its fortifications, adding sluices, canals, and dams to the harbour, which before was in very good condition: so that in succeeding wars it became a station for privateers and small frigates, which did considerable damage to the English, who, for that reason, at the treaty of Utrecht, in 1713, insisted on the demolition of the harbour and its fortifications; and afterwards at the Hague, in 1717, and at Aix-la-Chapelle, in 1748. It has now about 12,000 inhabitants; but before the destruction of its fortifications it had upwards of 26,000. In 1690, it was attacked by the Dutch and English forces, but without success. The road is one of the best and securest in Europe; but the harbour will not admit a ship of war of the first rate. The road lies at the distance of two miles and a half from the town, about three from the new harbour of Mardyke, and is sheltered by the Braeck, a sand-bank, extending parallel to the shore, two leagues E. and W. Upon this bank the sea is not above four feet deep at low water, and therefore ships cannot get over it, but at the time of the flood: but there are two channels, one at each end of the road. Behind the Braeck, to the eastward of Dunkirk, you may anchor, sheltered from a N. W. N. and N. E. wind, in two fathoms at

low water, but it shoals more to the shore. In the road you may anchor to the E. of Dunkirk, almost close to the jetties, in nine or ten fathoms, very good holding ground, being clay mixed with sand; and to the W. in six, seven, or eight fathoms water. It lies 15 miles from Nieuport, 11 from Gravelines, and 22 E. of Calais, 55 of Dover, and 26 S. W. of Ostend. Lat. 51, 7, N. Long. 2, 20, E.

CAMBRAY, an archiepiscopal city, the capital of the Cambresis, in the Low Countries, seated on the Scheldt. It is defended by good fortifications, and has a fort on the side of the river; and as the land is low on that side, they can lay the adjacent parts under water, by means of sluices. Its ditches are large and deep, and those of the citadel are cut into a rock. Clodion became master of Cambray in 445. The Danes burnt it afterwards; since which time it became a free imperial city. It has been the subject of contest betwixt the emperors, the kings of France, and the earls of Flanders. The emperor Charles V. took possession of it in 1543. After this it was given to John of Montluc, by Henry III. of France, whom he created prince of Cambray: but the Spaniards took it from Montluc in 1593, which broke his heart. It continued under the dominion of the house of Austria till 1677, when the king of France became master of it.

The buildings of Cambray are tolerably handsome, and the streets fine and spacious. The place or square for arms is of an extraordinary largeness, and capable of receiving the whole garrison in order of battle. The cathedral, dedicated to the Virgin Mary, is one of the finest in Europe. There are nine parishes, four abbeys, and several convents for both sexes. The citadel is very advantageously situated on high ground, and commands the whole city. Cambray is one of the most opulent and commercial cities

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in the Low Countries, and makes every year a great number of pieces of cambric, with which the inhabitants drive a great trade. E. long. 3, 20. N. lat. 50, 11.

ARRAS, by Ptolemy called Origiacum, and by Cæsar Atribatum, the principal city then of the Atrabatae. It is situated on the river Scarpe. This ancient and large city is divided into the old and new. The latter is called the town; and both it and the old city are surrounded with ancient walls, where are still several round towers in the antique manner. In 1477, Lewis XI. of France took it, and in 1493, the emperor Maximilian recovered it. Afterwards, in 1640, the French marshals, Caune, Chatillon, and Milleray, laid siege to and carried this place, after defeating the cardinal Infanta, who came to its relief. The Spaniards sat before it in 1651, but were beat off with considerable loss. Before Arras came into the hands of the French, over one of the gates of the city was this inscription, *Quand les Francois prendront Arras, les souris mangeront les chats*, i. e. When the French shall take Arras, the mice shall eat the cats. But when the French took it, a man of wit said, the inscription might stand, if, by erasing one letter, prederont were changed to renderont, which signifies, shall restore it.

Arras has since been very strongly and regularly fortified by the celebrated engineer M. Vauban, in which he has shewn some works of his own invention. It has walls, ditches, and a little valley, through which runs the small river Crinchon; and these divide it into two

parts, as has been already mentioned. It is a considerable place, and has also a citadel, which, though not very large, is reckoned one of the strongest in the kingdom, being an oblong pentagon, which marshal de Vauban repaired. It is something higher towards the country, where the ditch is dry, than towards the town. And the greatest part of the ground about Arras is so low, that it may be laid under water.

The bishop of Arras was suffragan to the archbishop of Cambray, and he was both spiritual and temporal lord of the city: he had a diocese of 400 parishes, an annual revenue of 22,000 livres, and he was taxed 4000 florins to the court of Rome. He was also president in the assembly of the provincial states, which was holden here; to which laid an appeal from all inferior courts. An appeal also laid from it to the parliament of Paris. The cathedral, dedicated to the Virgin Mary, is a fine structure, and in it they keep some famous reliques. The abbey of St. Vast has a very fine church belonging to it. Besides, here are eleven parish-churches, a seminary, a Jesuits college, and several convents. This town has fair and broad streets, and is inhabited by wealthy traders and artificers. They have manufactories of sail-cloth and tapestry-hangings, especially the latter, which, from that art being first invented in this city, take their name from it. Though they are indeed beautiful, they fall short of those made at Paris, Brussels, or Antwerp. Here the bailiwick or district and forest courts are kept. It lies 12 miles S. W. of Douay, in lat. 50, 20, N. Long. 2, 5, E.

PHYSICAL CONSTITUTION OF THE ATHENIANS.

BY MR. DE PAUW.

HAVING made known, by so many observations, the internal state of Attica, and the nature of its climate, we shall now endeavour

to analyze the frame and constitution of its inhabitants.

The Athenians, says Isocrates, are not to be distinguished from the other

other Greeks by an advantageous size or any superior force of body: but no nation in that part of the world, ever produced men of such extraordinary beauty. Plato could not speak without enthusiasm of Demes and Charmis; and when Pyrilampus, says he, was sent as ambassador of the republic to the east, neither the court of the Persian emperors, nor all the ancient continent could produce a mortal so perfect.

Socrates among his disciples had three Athenians, Xenophon, Critias and Alcibiades, who eclipsed the most beautiful of their age in Greece. Xenophon in particular, having the bloom of youth, possessed a form so seducing, that according to Diogenes Laertius, it could not be described by words. Some others have likewise been cited by Æschines at a later period than the Peloponnesian war, who so far from appearing to have degenerated, were perhaps superior to their ancestors, and surpassed beyond contradiction every thing among the Greeks. That class of Athenians, elevated by birth and fortune, could alone boast of producing these extraordinary men: for those, who were employed from their infancy in the fleets of the republic, contracted a depression immediately below the vertebral column, where the greatest effort is made in the attitude of rowing; and they could easily be distinguished from the other inhabitants. The mythologists of Greece imagined, that this deformity had been transmitted by Theseus to the Athenians; but their stone of sorrow was in reality nothing more than the benches of the galleys.

Nature had endowed the Athenians with a subtilty in their optical organs beyond what ours have ever attained. From the promontory of Sunium, says Paulanius, they discern the plumes of the helmet, and the very point of the spear, which belongs to the colossal statue of Minerva, in the citadel of Athens;

although in a strait line near thirty miles distant. Thus the poets and mythologists have less exaggerated than was supposed, when they asserted that the vessel of Theseus, when returning from Crete, had been seen at such a distance displaying black sails and mourning, instead of the flag of victory.

The Athenians could distinguish the principal parts of the temple of Jupiter in the island of Ægina; and the Æginians those of the temple of Minerva, which Pericles had constructed in the center of Athens. The distance between these objects was about eighteen miles; and the latter from its white marble, assumed the appearance of a luminous body, when at noon it reflected the rays of the sun, towards the west. Greece seems to have been created expressly for the advantage of architecture, because in no part of the world could edifices be placed in so strong a light, or in such picturesque situations.

Xenophon believed that the continual exercise of hunting in some cantons occasioned the utmost extent to the view of which it was susceptible. This opinion has since been verified by so many observations on different people, occupied in similar pursuits, that it no longer appears doubtful. Xenophon however did not know that the continual tension of the optic nerves, in discovering game at great distances, contracted the form of the crystal, and rendered the hunters incapable of discerning objects immediately around them.

Whatever may have been the cause, it is certain that the Greeks in general possessed the faculty of sight in greater perfection than any other of the senses; and to this may be attributed their astonishing progress in all arts depending in any way on the accuracy of design. The Egyptians, on the contrary, who had weak eyes, could never attain mediocrity, because it was impossible for them to seize exactly, the con-

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tour of animated bodies. They persevered without advancing in the least towards perfection, and the elegant forms slipped, as it were, from under their pencil. The superior construction of these organs may be considered as a national characteristic, distinguishing the Greeks from other nations. In none of the different races of men scattered on the earth from the country of the Esquimaux to the Terra del fuego, and from the coast of Africa to the islands of the South Sea, does the globe of the eye appear so large, and its orbit so extensive, as among the Greeks. It is not extraordinary, says Winkelmann, that ever since Homer's time, an idea of the most sublime beauty has been affixed to this favour of nature; for a great light, continues the same author, is certainly preferable to a feeble ray. But the Chinese and Japanese by establishing maxims totally opposite to this, demonstrate evidently that the tastes and pleasures of mankind are never determined by forced similitudes. As the women in these latter countries contrive to render the eye apparently smaller, by contracting the diaphragm of the eye-lid, some have suspected that an artifice existed among the Greeks for producing a contrary effect. But it requires only a superficial knowledge of anatomy to conceive, that such an operation would have affected the adjoining parts, and chiefly the lachrymal glands, in such a manner as to produce an irremediable deformity.

It is a circumstance equally remarkable and surprising, that, while the territory of Athens abounded with men, whose corporeal faculties discovered the highest degree of perfection, no age or situation ever produced women there who were celebrated for beauty.

Negligence in dress, unsupported by any natural graces, would have weakened, if not totally destroyed those charms which were necessary

to unite the sexes. With a view of correcting abuses of that nature, a singular magistracy was established at Athens, to superintend the dress of the women, and constrain them to appear decently. The rigor of this tribunal was extreme: it imposed the fine of a thousand drachmæ on those who neglected to adorn their hair, or discovered carelessness in their clothing; and the names of such persons were afterwards exposed on tables to public view. Thus the infamy attending the transgression, exceeded even the enormity of the penalty; for women, whose names had appeared in this catalogue, were lost for ever in the opinion of the Greeks.

This severity, instead of being useful, produced an evil entirely unforeseen. To avoid such disgraceful censure, every species of ruinous luxury was introduced; and the women, adopting the most extravagant modes, carried particularly the use of paints to an excess hitherto unexampled among civilized nations. It became, in fact, a perfect disguise, and confounded in public places, the most profligate courtesan with the respectable matron, as Xenophon has exemplified in his *Economica*.

The eye-brows and lashes were blackened by different procedures, and the cheeks and lips coloured with the juice of a plant, called *lythospermum tinctorum* by botanists, which communicates a carnation paler than carmine. On all occasions of ceremony, a coat of white lead, covered every face and breast without distinction, unless in time of mourning, and rules of exemption even then were not always respected, as appears by the pleadings of Lyfias.

Never did a more marked difference exist among all the varieties of the human species, than between the women of Attica and those of Circassia. The pure complexions of the latter owed nothing to art; and in the market of Caffa in Crimæa,

mea, they had to undergo many trials in the presence of purchasers, to prove that their charms proceeded alone from the bounty of nature.

The learned have always imagined, that the women of Attica had no other view in the cruel mode they had adopted of squeezing up their bodies than that of rectifying the shape. But on considering the practices of those Greek merchants, called *Andrapodocapeloï*, we are led to suppose some more particular object. It was observed, that all female slaves, destined by them for the rich and voluptuous, had their hips compressed with knots of cord and bandages.

Several naturalists are of opinion, that, in the southern parts of Greece, the islands of the Archipelago and Asia Minor, the women are subject to uncommon effusions. Indeed the greatest anatomist of our age has discovered, that this singularity affected even the very configuration of the bones, as appeared by a skeleton he had received from the Levant. Many individuals of these countries would have escaped excruciating pains in child-bearing, had not the constriction of their robes augmented the danger of bringing forth, as well as that of being born. Yet all such attempts must have availed nothing, for when a certain peculiarity, proceeding from the nature of climate, affects the human frame, we may be

assured that its influence is unchangeable. Galen says, that in his time it was necessary to circumcise the women of Egypt; and the same necessity still exists there; neither are tumors in the neck become less frequent among the inhabitants of the Alps, in the course of twenty centuries.

The virgins of Athens could never have supported the torments inflicted on them, under pretence of correcting their organization, had not care been taken to diminish the necessary effects of the nutritive juices. Dioscorides assures us, that not only the sad precaution of frequent fastings, but likewise astringent and ferruginous powders were employed, to prevent the bosom from growing too large, in consequence of the excessive compression of the waist.

These details are sufficient to prove, that all was artifice and constraint with the women of Athens, while the men issued from the hands of nature endowed with all the graces, such as Autolycus has been represented by Xenophon. Plato describes Charmis like a star in the firmament, surrounded constantly by a crowd of admirers; while the name of Demus, the son of Pyrilampus, was inscribed on the porticos of the town, and the facades of the houses, to transmit to posterity the fame of such an accomplished mortal.

LETTERS ON PLANTING AND THE MANAGEMENT OF WOODS.

From THOMAS SOUTH, Esq. to the Secretary of the Bath and West of England Society.

LETTER III. ABLE.

THE rapid growth of this timber having been already ascertained by a former correspondent, I have little to add, save that not being subject to the ravages of the worm, it is applicable to more useful purposes

than that gentleman has assigned to it.* After the storm in 1781, which not only blew down my elms, but my barns likewise, I rebuilt one of five bays, and twenty four feet long in the beams, and roofed it entirely with

* I think Able must be too ~~spongy~~ for the turner.

with this timber; and from the experience of others, together with the present appearance of beams, rafters, &c. have reason to think that my grand-children will not find fault with it. In an out-house roofed at the same time with elm, there are manifest signs of the worm already, which will in the end destroy it. But let it not be understood, that I recommend the use of abele under any covering but thatch, which if not suffered to gully into holes, will always protect it from wet, on which alone the durability of the timber depends; the drippings from a broken tile, slate, &c. cause it soon to perish.

These trees are often subject to warty excrescences, which, when large, imbibe moisture, and bring on decay. Whilst the plants are young, they do little injury, yet it is advisable to root up such as are much disfigured with them, to give room to those which are healthy. I have some of the true abele or populus alba, which are now forty feet long in the shaft, and six feet four inches in circumference at five feet from the ground; their exact age I do not know, but their contents exceed two tons of timber each, and I judge them to be fifty years old.

The species your correspondent mentions, (as received under the denomination of the Dutch beech) surpasses them in quickness of growth. But I much suspect that his trees are very branchy.

ALDER.—As patten-makers timber merits little regard, but being the most beautiful of the whole aquatic tribe, is extremely ornamental along the banks of serpentine rivulets, or planted as single trees in springy gravels, or peaty bogs, where little else will grow. Placed in a border round abeles, the latter run above them, and form a pleasing contrast.

From the authority of great masters in their way, Miller, Mortimer, &c. I was induced to plant a wagon-load of truncheons, in the year 1764, in situations above described. I was flattered the next summer with every prospect of success, their shoots being strong and gross; but lo! the year following, one and all perished, not having struck a single root. Being satisfied that this could not be owing to a defect in the soil, I replanted the same in 1766, with small-rooted slips taken from old stubs, few of which failed; most of them have been cut twice for brush wood, poles, &c. and of those planted single, one has formed a conical top of great beauty, and its bole is three feet seven inches in circumference, midway between the branches and the ground.

Mr. Miller recommends this timber as excellent in water-works, but I can say nothing of its merits myself, having never tried it. When charred, it makes the best coal for gunpowder.

ASH.—The growth of ash in soils adapted to its nature, is little inferior to that of elm or beech.* But there is no timber whatsoever that differs more in its value than this does, according to its situation. The productions of dry and healthy ground (unimpaired by the farmer's bill-hook) will prove acceptable to most purchasers. Those of woods are generally clean in the shaft, free-cleft, and more valuable than the former. The nearer the ground, the tougher is the timber, the shaft therefore is coveted, the brittle branch rejected.†

If these trees are removed when ten or twelve feet high, their grain acquires a degree of tenacity very prejudicial to the timber. My predecessor, about the year 1750, planted a row of them in a place since converted into a garden. Their shafts were apparently

* Vide p. 445, Society's Mem. vol. 5.

† The buyers of this timber accept the shaft and its continuation, or best bough; the rest, be they ever so large, go with the top.

apparently so clean, as to engage a cooper's notice, who purchased them at a good price, viz. 36s. per ton, but told me afterwards, they were clung, and did not answer his purpose.* so he resold them to a country carpenter at a loss. One of these trees, which was left standing, measures now four feet eight inches in circumference at four feet from the ground.

Ash timber, when raised in damp meadows, or moorish soils, becomes light, spongy, brittle, and of small value, in comparison of that on dry and healthy spots. In meadows, they will attain a size † which cannot be expected in moors and bogs; for when the roots reach the peat, the bark grows mouldy, and the top decays; how long slubs may be productive of poles, in such situations, remains to be determined, but experience convinces me, that ash, thus planted, will never become timber of any value, as the roots must perish before the tree arrives to perfection.

Ash trees in dairy plots are nuisances, as their leaves make the butter rancid and worthless; mixed with beeches in an open grove, they run to great lengths, are free-cleft, and make valuable timber. Coach-makers, wheelwrights, &c. like the shafts when a little bent, more than when perfectly straight. The cooper has no objection to the latter.

BEECH.—The propagation of beech is strongly to be recommended as a free-grower, and applicable to many useful purposes. It saves oak

(as before mentioned) in planking ships bottoms, and in ringing mill-wheels; its close grain and firm texture render it unparalleled in water-works of all kinds, for when constantly kept wet, it appears as perfectly sound at forty years end, ‡ as when first immersed. The mortices and tenets chafed by the influx and eflux of water will in time be the one enlarged, and the other diminished, but the wear in this timber is nothing like so great as that in elm; wherefore head-cells in mill-races, wiers, &c. should be of beech, in preference to any timber whatsoever; and, as the very offal is the most valuable cleft-wood, yielding a guinea a cord to the malsler, there are few trees more profitable to the planter in countries where there is a demand for it. The beech is the chief ornament of the Cheltern hills in Buckinghamshire, and of the Horse-shoe hills in this county. It delights in chalky soils and lofty situations; it is more profitable in open groves or mingled with ash, than in coppices of underwood; it runs up in the former with a long clean shaft, it branches in the latter to the destruction of all around it. § Yet both length of shaft and branchy crooks have in this timber their respective values for the purposes above-noticed, which makes me wonder, that the timber bears no greater price than from 6*d.* to 8*d.* a foot, whilst elm fetches 10*d.* and a shilling. || I have many beeches of large size, and great beauty; one that

* i. e. They would not cleave into hoops. *Clung*—a provincial term, signifying that the grain adheres too closely to separate freely.

† An ash in my mill mead, which in 1760 contained 34 feet of timber, being apparently at a stand, was felled last spring, and then measured 60 feet, viz. an increase of 26 feet in thirty years. It was a fine butt to look at, but was estimated at no more than 2*s.* per ton. N. B. The top had been decaying, and the growth stagnated for five or six years past.

‡ Of this I have had frequent proof, having known the same beechen cell, when turned, and fresh morticed, last two wiers, and found enough afterwards to make the plating of an outhouse.

§ N. B. Nothing but holly will grow under the drip of beech (truffles only excepted). || Notwithstanding the body of the beech, however clean, fetches a price inferior to straight elm, yet the limbs and offal are worth more than those of elm, and there is a difference of measure which brings them nearly to a par in price, for the buyer claims an allowance of an inch in a foot girt, on account of the roughness and thickness of the bark

that has been measured repeatedly was, at Midsummer 1769, six feet two inches and a half in circumference, at five feet from the ground,* and at Midsummer last, was eight feet, seven inches and a half, viz. it increased twenty-nine inches in twenty-one years. being above one inch and one third yearly. The shaft of this tree is about forty feet long, as straight as an arrow, it breaks all around into small branches, and contains between two and three tons of timber.

In the year 1768, I planted some hundreds of young trees in single and double rows along the side of chalky hills. These are now thirty feet high, and in circumference from eighteen to twenty inches at four feet from the ground; they were originally drawn from the woods from three to four feet high, and a general failure being prognosticated by unsuccessful beech-planters, I placed them thicker than I would have done, and planted them alternately, the best at full length, and the worst cut down to the lowest eye, which was left even with the surface of the ground; there were not one in an hundred of the former which lived, nor one in a hundred of the latter which failed. An upright growth of thirty feet, in two and twenty years, in a poor shallow soil, is as much as could be expected; they would have increased faster in bulk, if they had been permitted to

have spread; but my design being to draw them into long shafts, they were frequently trimmed for that purpose, and promise to make fine trees hereafter.

N. B. Beeches may be trained to long straight shafts, after the manner of elms, with this difference only—that a spray must be left near the end of every shortened branch to keep it alive, otherwise it perishes, and becomes a faulty knot.

Beeches are the worst neighbours oaks can have, they grow so much faster, and extend their roots so far as to weaken, if not starve them. When the former overhangs the latter, that assuredly dwindles, becomes dead topped, and worthless.

FIR.—Though I do not think the Scotch fir in this country can ever equal the yellow deal from the Baltic, yet it may be worth propagating, as of useful purpose in ordinary buildings. The drier the ground on which this timber grows, the slower is its progress, but the closer are its pores, and the more superior its quality.† When planted in rich land, these trees will shoot three or four feet in a season, and equal, if not surpass, the albe in growth. My plantations, though chiefly confined to chalky banks, in a north-west exposure, evince, that when once rooted, few obstacles will prevent a profitable progress. From observing the mistakes of others in endeavouring to ornament their
naked

bark in the latter, but claims no deduction for the smooth bark of the former; another consideration for the planter is, that elm requires a soil worth 20s. per acre, whilst the beech will grow in white land, scarce worth 7s. per acre.

* That is, five feet on the lower side, or four feet on the upper. Query, What will be the contents of this tree at 24 years end, after the same rate of growth?—A shaft tapering regularly from a circumference of 8 feet 8 inches at its base, to 4 feet at its summit, will girt 19 inches in the middle; for the girt at top 12 inches, added to the girt at bottom 26 inches, are equal to 38, which divided by 2, are equal to 19 inches the girt midway; and 40 feet by 19 girt, are equal to 100 feet of timber, its present supposed content. Then at 24 years end, allowing an inch only in a year for the extension of the shaft in length, it will have gained two feet additional length, and 24 times one inch $\frac{1}{2}$, are equal to 32 inches, equal to 8 inches girt, added to its present measure 19 inches, are equal to 27 inches; then 42 feet by 27 inches, are equal to 212 feet, 7 inches; so that in 24 years it will gain 112 feet, viz. it will more than double its present contents, which it has been 60 years at least in attaining.—May this prove an incitement to those who have thriving trees, to preserve them, till they have apparently done growing.

† I should imagine, that the firs planted by Mr. Allen, near Claverton Down, will prove very fine timber hereafter.

naked downs too suddenly, I learnt the necessity of planting firs, when a foot high only, and by opening the ground some time before, inverting the turf at the bottom of the holes, and throwing the mould upon it in hillocks, to meliorate, my plantation succeeded well; for though the soil is scarcely six inches deep, the firs, set in 1766, are now thirty feet high, and from two feet six inches to two feet in circumference, at four feet from the ground; some few planted

at the same time, in a deeper soil, and warmer situation, are now above three feet round.

Spruce firs planted in 1766, likewise in a tolerable good soil, are now forty feet high, and from two feet ten inches and a half to three feet round.

I have seen plantations which far surpass either of these in growth, but they occupied ground infinitely more valuable.

ACCOUNT OF A PLAGUE WHICH RAVAGED THE ISLAND OF CYPRUS, &c.

BY THE ABBE MARITI.

IN the month of January 1760, I set out from Leghorn, in order to go to Cyprus, which I reached after a short and agreeable voyage. My pleasure, however, was not of long duration; for on the 3d of February, the day of my arrival at the island, I learned that this country was infested with the plague; and the towns of Salines and Larnic, still free from this terrible scourge, beheld it, not without terror, exercising its ravages in the city of Nicosia, where some new victim fell a sacrifice every day to its fury. The picture of the whole island a prey to inevitable destruction, was continually before their eyes; and the evil had already extended itself to the maritime regions, which, on account of their greater population, tended more to increase the progress of this disastrous distemper. The consuls, merchants, and Europeans in general, were therefore extremely cautious in holding any intercourse with them. Several sequestered themselves entirely from all society: others were preparing to shut themselves up in their houses, and to condemn themselves to voluntary imprisonment, until it should please Providence to deliver the kingdom. On the approach of a danger which I had hitherto considered as at a distance, I was, I must own, not a little

alarmed: but as I was obliged to go on shore, an European advised me to be upon my guard, to approach no person, and to touch nothing suspicious. He assured me also that the town of Salines, and the city of Larnic, had not yet experienced any symptoms of the disease; but that their correspondence with the capital would render it impossible for them to avoid it.

As soon as I landed, I paid a visit to the consul, which is a duty imposed by custom on all strangers who arrive here. In my way, I carefully avoided every person whom I met; and they, in their turn, seemed to be actuated by the like fear, and to employ the same precautions as myself. It was really a distressing spectacle, to see the mutual horror inspired by people who a little before were united in the strictest bonds of friendship. The consul received me in a very gracious manner; and I had the honour of being invited to dine with him. When I waited upon the French consul, attended by some people in whom I could confide, he conversed with me from within his palace, and next day I partook of a repast with him. These were the only persons whom I could see: the other consuls, and the greater part of the merchants, shut up in their houses

houses as in citadels, would not have shewn themselves for the whole world.

The same evening I went to take leave of the English consul: but this gentleman, to whom I had hitherto enjoyed free access, thought proper to redouble his precaution; for he had just heard that three of the inhabitants of the town were attacked by the plague. As for me, I went and passed the night on board the vessel in which I had taken a passage hither.

Next morning, having business with the French consul, I returned to the town, where the danger was now increased. Of the three infected people two had died, and the third was exceedingly ill. The contagion; besides, had made a very rapid progress; and several others found themselves attacked by violent symptoms. On going to the house of the English consul, I was refused admittance; but I spoke to him through those posts with which the consuls, on such melancholy occasions, are accustomed to barricade their palaces. The French consul, who was less timorous, gave me an audience. He informed me that this scourge had begun to declare itself two months before on the coasts of Syria, and in the interior parts of the country; but that the long lapse of time since the last plague had lessened the vigilance of the inhabitants, whose fatal security had converted a particular misfortune into a general calamity. It may readily be conceived how much I was afflicted by this intelligence, as I intended to visit almost every port in the Levant. I however resolved to re-embark with the first fair wind, and to quit this solitary island; entertaining a hope, though perhaps in vain, that I should be more fortunate in Syria. The same evening, therefore, I took leave of the English consul, and did not again return to Larnie.

The island of Cyprus had for thirty years been free from this

scourge, so rapid in its progress, and so terrible in its consequences, when the unhappy remains of a Turkish vessel, driven on shore near Paphos, disturbed its happy tranquillity. The city of Nicosia, where the unfortunate sailors found an asylum after their shipwreck, was the first victim of its imprudent generosity. The destructive disorder, diffusing its baleful influence every where around, soon overspread the greater part of the island, and did not lose its fatal activity till it had ravaged the country for six months, and swept off above twenty thousand inhabitants.

On the 8th of February I quitted the harbour of Salines, and next morning anchored in that of Caipha on the coast of Syria. I wished to have proceeded to the city of Acre, which is eight miles distant from Caipha towards the north: but the harbour at that season is not tenable.

My first care on my arrival being to learn whether the plague prevailed in that country, I was informed, not without a considerable degree of alarm, that this scourge in its greatest activity, added to several shocks of an earthquake, had occasioned great desolation not only in the town and territories of Acre, but in the whole extent of Syria, as far as Antioch; and that this city had seen those buildings thrown down which had resisted the violent earthquake that had happened in the year 115 of the christian æra, under the empire of Trajan.

I remained on board till the 22d of February, hoping that time would bring some alleviation of these evils: but matters, instead of becoming better, grew every day worse. Tired at length of waiting in anxious suspense, I caused the bark to put to sea, in order to go to Acre, where I shut myself up in an apartment in the French quarter. Here the inhabitants conversed with me only at a distance. I might indeed have been permitted to mix with them by submitting to a proof of twenty days;

but

but I preferred my solitude, though I was not altogether alone. I was accompanied in my retreat by three people belonging to my vessel, who shared with me in all my petty domestic embarrassments. Each in succession took upon himself some family operation; and the pleasantries occasioned by entering into these minutiae, so new to us, made us sometimes forget our fears. Our communication with our neighbours was confined to receiving provisions, and other things of the same kind, which had not been infected by the contagion.

The first day appeared exceedingly dismal and melancholy. The tediousness of so close a confinement; the tears and lamentations of those who were interring in heaps the unhappy victims of the malady; the fear of another earthquake; the still greater terror of bearing in one's bosom the destructive germ which had expanded with so much fury in the rest of the city; and the cries of despair which were succeeded by the silence of the dead—all pressing into the troubled imagination, would have daunted the minds of the most intrepid. It was during this time of mourning that custom appeared to me to be the true gift of heaven: it renders us in some measure insensible to pleasure, it is true; but it blunts our feelings, and renders us less susceptible of pain. My agitation, however, was at length calmed; and the same spectacle continually recurring, suffered me to recover the use of my reflection, and sufficient power of mind to make observations. I therefore studied the origin, progress, suspension, and final decline of this terrible scourge, by keeping a daily journal of its ravages, as well as of the care and precaution employed by those who sequestering themselves thought they should be able to escape its fury. With the method practised by the French I am, above all, well acquainted; for, besides other opportunities, I had the advantage of being able to fol-

low it with my eyes. As my remarks may induce some happy and benevolent genius to pursue the same subject, and to make such discoveries as will prove highly beneficial to mankind, I shall here give the substance of them.

As Syria had for thirty years enjoyed the greatest salubrity, the inhabitants had lost every idea of this scourge, which had formerly been so destructive to their country. An epizootic disorder, however, which broke out among the cattle, and particularly among the sheep, in 1748, made them at length entertain some apprehensions for themselves. The year following they were still further alarmed by several flocks of an earthquake, and the whole coast was covered with ruins. These ravages they considered as so many fore-runners of the plague, especially as that which happened in 1730 had been announced by the like disasters. Their conjectures were indeed soon realized: in the month of December, 1759, a fever, which was characterised under the name of malignant, broke out in the island. But this error was not of long continuance; for the plague declared itself in 1760, and in a few days infected the whole city of Acre. The plague does not reside in Syria, nor is that the place where it generally begins. It receives this fatal present from Egypt; and its usual seat is Alexandria, Cairo, or the environs of Damietta. The plague of which I now speak came, at the same time, from Cairo and Alexandria; to the latter of which it had been brought from Constantinople. This scourge, when it comes from that metropolis, as well as from the cities of Smyrna and Salonica, acquires a peculiar malignity; and its activity never expands itself with more fury than in the plains of Egypt, which it overpreads with incredible rapidity. Travellers, and ships which transport goods from one place to another, are its usual vehicles. It is observed that this plague, so destructive

destructive to Egypt, seldom attacks Syria; but that the latter in its turn has every thing to dread from the influence of a plague hatched in the bosom of Egypt.

Every European, on the slightest appearance of this scourge, after making such preparations, and taking such precautions as are usual on the like occasions, shuts himself closely up with his whole family.

The Mahometans alone, more intrepid, go abroad as usual; keep up the same intercourse with one another; give each other such assistance as may be necessary; and often fly to the relief of a Christian, when deserted by his friends. This intrepidity arises from the belief which they have, that the decrees of Providence are unalterable, and that the execution of them cannot be suspended by the vain precautions of men.

The Mahometans of Syria, less familiarized with this scourge, make use however of some precaution, which upon this occasion they augmented. They published an ordinance, forbidding every vessel attacked by the plague to enter their ports: but their vigilance in this respect was so remiss, that it was not sufficient to prevent the contagion.

The governor of Acre checked the progress of this plague, by giving the inhabitants the means of withdrawing from its ravages: and these means, though absolutely contrary to the dogmas of the Mahometan religion, were eagerly embraced. The Europeans became their models: and the governor, after deriving from them every necessary information, shut himself up, after their example, together with his numerous family.

The muphti alone, born the protector of the Mahometan law, cannot imitate a conduct which that law condemns. Instead of shutting himself up with silence in a prudent confinement, he thundered forth against this new method; reproached the governor for his conduct; and, having treated him as an impious

person, concluded by threatening him with all the vengeance of heaven. The governor, however, only laughed at this pious folly of the muphti, and sent a detachment of foldiers, to impose a fine on him of two hundred and fifty sequins, for having dared to ascribe to him, in matters of religion, an ignorance, from every suspicion of which his age ought to secure him. This was attacking the pontiff on the weakest side, and the most effectual means of shutting his mouth.

In Syria, as well as in Egypt, the plague begins in winter; acquires new vigour in the spring; and decreases very sensibly with the great heats, about the commencement of June. Those attacked by this malady may then be cured: as it daily loses its activity, few of them die; and, for this reason, all the Europeans quit their houses on St. John's day, and repair to church to sing the *Te Deum*, and return thanks to the Almighty for their deliverance.

The plague of 1760 was one of the most malignant and fatal that Syria ever experienced. It scarcely made its appearance in any part of the body when it carried off the patient. The usual symptoms were, a loss of appetite; a pain in the shoulders; a very violent head-ache, accompanied with a delirium, vomiting, and a most excruciating pain in that part where the tumour, by which the plague is characterised, was about to break forth. One only of these symptoms was sufficient to make the Christians prepare for death. Every Catholic attacked by this disorder must be attended by a priest, who, having taken every possible precaution, presents the eucharist to the sick on a small piece of wood shaped like a battledore, and about two feet in length. An infected person often dies the third day; if he passes that term, it is a sign that the disease does not possess all its usual activity: but very few live beyond the thirteenth.

It was observed during the last plague, that people of the soundest constitutions

constitutions were the most subject to this scourge, and the least capable of resisting it. On the other hand, it appeared to spare weak and delicate persons, whose cure, in case of an attack, was much less difficult. More Moors than any other people died of it; and when these were attacked, their case was absolutely desperate.

Those who have once escaped this scourge are afterwards less subject to be attacked by it: but it is not true that they are perfectly safe, for I have known some who had been ill seven times, and yet died of it at last.

It has been remarked, that the symptoms of the plague do not appear in the human body till fifteen days after the infection has been caught: and this is the reason of that law which subjects to a proof of twenty days every person suspected of being diseased.

The plague, as I have already said, is an oblong tumour, shaped like a pumpkin, which is at first of a flesh colour; but it gradually becomes red, and at length blueish; and this announces that the disease is incurable. If it continues red, and a little after inclines towards yellow, it is a sign that a suppuration will take place: the swelling is then opened, and the patient is sometimes cured.

People attacked by this disorder require very little care. Pure water, panada, tea, and rice, are the only nourishment allowed them. There are some who think to escape by drinking strong liquors; but experience has shewn this to be a dangerous mistake; and that those who trusted to it have almost always fallen a sacrifice to their folly. The proper precautions are to shut oneself closely up, and to receive no provisions, or other things, except those upon which the plague has no influence.

The people of Syria, however, in 1760, admitted every kind of provision without fear, but not with-

out using certain precautions. They did not receive warm bread; flesh of every kind was thoroughly washed; and milk was strained through a piece of linen cloth, in order to free it from the smallest particle of animal hair. All kinds of pulse were soaked in water: and they abstained from peaches, apricots, and other fruits which are covered with a downy rind. Fowls were cooked out of the house, for fear that some small feather might adhere to them. Flowers were altogether proscribed. Letters they caused to be opened by the person who brought them; and they were never read until they had been steeped long enough in vinegar to be purified without effacing the writing. Every thing was received into the house by means of a rope of herbage suspended from a window.

The governor of Acre, in imitation of the Europeans, employed every precaution which he thought likely to guard him from the contagion; and, by shutting himself closely up, he set an example which the rest of the Mahometans did not neglect to follow. Besides this, he caused the streets to be cleaned; and carried his vigilance so far, as to forbid the caravans, which arrived from Damascus, where the plague swept off four or five thousand people every day, to enter the city.—He obliged them to submit to a proof of eight days without the walls; and established regulations of the same kind respecting vessels coming from Damietta or Alexandria. One precaution taken in the time of the plague, is to prevent cats from entering houses; an open war is therefore declared against these animals; and wherever they are found, they are knocked on the head with large clubs. This is a cruelty absolutely necessary, for there is no vehicle that will convey the infection with more certainty or rapidity than the hair of cats. The destruction of them is, however, attended with one inconvenience, which is, that it occasions a multiplication of rats and

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mice; but there is no instance of their having ever propagated this scourge.

It is to be remarked, that the plague, when it attacks man, spares quadrupeds and birds. The furs however of the one, and the feathers of the other, attract and communicate the infection. People ought above all to keep at a distance from goats and sheep. From oxen and horses little danger is to be apprehended.

The French at Acre, as in every part of Syria, are collected into one quarter, where they sequester themselves entirely, and elect, every eight days, a merchant, and a clerk of the bank, to receive all unsuspected persons, after using such precautions as may tend to lessen the danger of admitting them. This, however, is not always attended with the desired effect. On the 30th of March, 1760, five people in their quarter were attacked by the plague. As they belonged to the Hospital of the Holy Land, the monks were immediately ordered to shut themselves closely up; but eight of them died, and one only escaped. This circumstance occasioned so much consternation among the French, that they gave over having communication with every person whatever, and even with their own servants. Each immured himself in his habitation for fifteen days; at the end of which, affairs returned to their usual channel.

All the cities of Syria were equally desolated by this scourge. It penetrated even to Aleppo, where it

continued two whole years: nor were the inhabitants delivered from it but by an excessive cold. In this respect it was very different from that of Egypt, and the rest of Syria; for the plague there ceases only during the great heats, which are remarkably regular in these countries, while it is very rare to experience a cold so rigorous as to check the contagion.

The inhabitants of Acre amounted only to sixteen thousand; and in the short space of five months, five thousand of them died of the plague. On St. John's day, June the 24th, 1760, the French, who form here the major part of the Europeans, opened the barriers which surrounded their quarter, and began to form a communication with those without. They then relaxed in their caution; the places of worship were cleaned, and each nation went to return thanks to the Almighty.

The French have a physician, who is allowed a salary from the national funds. On the least rumour of the plague, the consul sends him to the place where the symptoms have appeared: after this he makes his report; and this report, which annuls or realises the suspicion, is inserted in the letters of health dispatched to the different courts of Europe.

In general, too many precautions cannot be employed to guard against this dreadful scourge; for proper vigilance has sometimes saved the lives of thousands, who would otherwise have become victims to it.

ACCOUNT OF ZAARA, IN AFRICA.

BY M. SAUGNIER.

EVERY body knows that the people who inhabit Barbary, as far as the Niger, are an assemblage of various nations. The Moors occupy the three kingdoms of Suz, Fez, and Morocco. That part of Bilidulgerid that is washed by the Atlantic Ocean is inhabited by the

native Arabs, and by the fugitive Moors from the empire of Morocco, too enlightened to remain under the dominion of a master, who rules over his people with absolute sway, and who makes his safety and happiness consist in the misery of his subjects. This mixture forms one

and the same nation, known indiscriminately by the appellation of Monselemines.

Zaara, as far as the Niger, contains a variety of wandering nations, all proceeding from Arabs, Moors, and fugitive Portuguese, who took refuge there when the family of the Sherifs made themselves masters of the three kingdoms of Barbary. All these people bear indiscriminately the names of Nars, Moors, or Arabs. They are subdivided into various nations, of which the most considerable are the Mongearts, Trasars, and Bracnars.

The first of these three denominations is a term of contempt among the people who surround them; no doubt because those who bear it, less versed than their neighbours in the use of arms, are in general occupied by the care and the feeding of their cattle; while the Monselemines, on the contrary, though shepherds also, are warriors to a man. These latter accustomed to murder and pillage, take advantage of their superiority and numbers to oppress the former, who are always rendered but too wretched by the sterility of the country they inhabit. Their climate, little tempting to an invader, serves them it is true, as a barrier; but in the months of August, September, and October, when the overflowing of the plains obliges them to take refuge in the mountains, they are almost sure of becoming the victims of their neighbours, who pillage them without scruple, although they profess the same religion.

The cause of this nation's distress might also be ascribed to another reason; I mean to that of religion. When the Sherifs made themselves masters of the three kingdoms of Barbary, the Portuguese inhabitants of the towns evacuated them, and sought an asylum in their native land; but the country people had not this advantage within their reach. The greater number, to preserve their lives, abjured the Chris-

tian religion, and were allowed to remain in the country; while those who would not embrace Mahometanism were put to the sword without mercy. Notwithstanding the change in their religion, it was still remembered that these people had been Christians. The conquerors loaded them with incessant insults; plundered their property; carried off their wives, ravished their daughters, and behaved with the utmost cruelty.

To escape from such tyranny they took refuge in the desert, and finding there some wretched hordes of slothful Arabs, were soon incorporated into one and the same nation. The habit of plundering these poor people has been handed down from generation to generation, and unfortunately is still but too much the practice.

I will not speak here of the Trasars, or of the Bracnars, any more than of the other nations scattered about on the northern banks of the Niger. Such information would too nearly relate to commerce, of which I reserve a succinct mention for the moment when I shall treat of the Moorish and Negro races, who carry on the trade of Senegal, no historian having as yet given certain accounts of them.

It is not possible that a people, for ever wandering, and fugitive, and composed of a mixture of various nations, that does not even form a distinct and separate body, should do otherwise than adopt a part of the usages and superstition of their neighbours, whatever may be their way of thinking: they have however only the name and appearance of Mahometans. The principles of the natural religion are observable in their customs, and evident in almost all their actions.

Religion, according to these people, is Mahometanism in all its purity. They offer up prayers three times a day, sometimes oftener; but they are never pronounced in public, unless when a Mahometan priest

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is with the horde, who seldom comes but upon account of the children's education. Then all the Arabs assemble at the hour of prayer, place themselves in a line, turn to the east, and, wanting water in the desert, rub their face and arms with sand, while the priest recites aloud the general prayer; it is the same as that which is rehearsed by the public crier on the mosques in the civilised countries.

The priests are employed in travelling about the country to instruct the children. There is nothing like force in their education. The Arabs of the desert are even ignorant of the custom of constraining wills.

The little boys meet in the morning of their own accord, at the place of instruction, which is to them a place of recreation. They go there with a small board inscribed with the Arabic characters, and a few maxims of the Koran. The biggest, and the best informed, receive their lessons directly from the priests, and afterwards communicate them to their fellows.

The children themselves teach one another to read; nor are they ever corrected. It would be a crime to beat a child, who according to the received ideas, has not sufficient reason to distinguish good from evil.

This opinion induces these people to hold the same conduct in regard to those who have the misfortune to be ill-treated by nature. The deaf, the dumb, and the mad, enjoy the same privileges; they are considered as beings already so unfortunate from their situation, that their desires are satisfied with a blind complaisance. This custom is inviolable among all the Mahometans.

No difference exists among the civilized nations, unless it be in respect to the age at which a child may be subjected to correction. In the desert it is never allowed at all. Nature, left to herself and the

force of example, are the only education in a country where the same principles and same errors are common to all. If the child gets tired of the places of public instruction, he quits them at pleasure, and without feeling constraint, or hearing reproach, goes and employs himself in tending his father's flocks: and accordingly there are very few among them who can read.

Those who persevere in the study of the Koran are made priests, after having past an examination before the learned elders, and enjoy the greatest public consideration. They have no need of cattle, those of the nation being their's, they find their subsistence every where.

It is generally at seven or eight years of age that children undergo the painful operation of circumcision. Their head is always shaved, nothing being left but four locks of hair, one of which is cut off in a meeting of the family, at each remarkable action performed by the child.

If, at the age of twelve or thirteen, he kill a wild boar, or other beast of prey, that should fall upon his flock he loses one of his locks. If, in the passage of a river, a camel be carried away by the stream, and he save it by swimming to its assistance, another is cut off. If he kill a lion, a tiger, or a warrior of an hostile nation, in a surprise or an attack, he is considered as a man, and his head is entirely shaved.

Seldom does an Arab reach the age of twenty, without having deserved this honour, for as they are ashamed of being treated like children, they expose themselves to the greatest dangers to obtain it.

Their knowledge, their wants, and their laws, being very circumscribed, it is not surprising that the children should talk with the men, and keep up a regular conversation. Age and experience are of no use where there is no need of much information to attain a perfect know-

ledge of the customs of their nations; hence arises that boldness, that valour, and that temerity, which so well become a man, and which no people possess in so high a degree as these savages.

The laws of hospitality are observed in Zaara, in the largest sense of the word. Scarcely does a stranger appear before the tents, when the first person who perceives him, points out the tent to which he is to go. If the master be not there, the wife or the slave advances to meet him, stops him at twenty paces distance, and brings him a draught of milk for his refreshment. His camels are then unloaded, his effects are ranged around him, a mat, of which the owner deprives himself, is given him, with whatever else is necessary to guard him from the injuries of the air.

His arms are taken and deposited near those of the master of the tent, either that they may not suffer from the dew, or to guard against ill intentions on the part of a man unknown. A repast is then prepared for him. If there be nothing in the tent, as often happens, some victuals are speedily procured from the neighbouring ones. The traveller is always sure of having something, for rather than let him want, his hosts would go without a supper themselves.

The duties of hospitality are so great, and so much respected, that should an enemy have wounded, or even killed the master of a tent, would there meet with a sacred and inviolable asylum, although surrounded by those who must naturally desire his ruin.

The tent of the chief is always the one pointed out. But as his gains are not greater than those of the rest, he could not, if custom had not provided for it, entertained at his expence, all the strangers that happen to pass; nor could he support himself and his slaves, since he

is for ever occupied by the affairs of his horde. Every tent contributes to his stock of provisions. Each individual generally furnishing him two pounds of ground barley per week, which is a great advantage to him, especially when he happens to have few travellers to entertain. As the richest in cattle is generally chosen for chief, he has plenty of milk; but in case of need he would obtain a supply any where.

Different from the other Arabs, their neighbours, the Mongearis, trouble nobody on the score of religion. The only one they do not tolerate is the Jewish; no doubt on account of their ancestors' prejudices, who followed the customs of the Portuguese. None of the Hebrew nation is found among them; and if a Jew had the misfortune to enter their territory, and to be taken there, he would to a certainty be burnt alive. It is very easy to know them by their faces, and by the distinctive dress they are obliged to wear throughout the whole extent of Barbary, where they are in great numbers.

Infinite respect is paid to all old men, whatever be their family. They enjoy the same prerogatives as the priests, and equal consideration with them and the Arabs who have had the good fortune to visit the tomb of Mahomet at Mecca.

The latter are distinguished by the appellation of *fidi*, which signifies master, while the rest of the nation only bear the distinctive names they received at their birth. If it happen that two individuals of the same family have the same name, they are distinguished by that of their father; for instance, the emperor of Morocco's true name is Mohammet, but as he might be confounded with many other Moors, who bear that name, he is generally called Ben Abdella.

[To be continued.]

ON THE TRIAL BY ORDEAL AMONG THE HINDUS.

BY WARREN HASTINGS, ESQ.

From the Asiatic Researches.

THE modes of trying offenders by an appeal to the Deity, which are described at large in the *Mitácsherá*, or comment on the *Dherma Sástra*, in the Chapter of Oaths, and other ancient books of Hindu law, are here sufficiently explained, according to the interpretation of learned Pandits, by the well-wisher to mankind, Ali Ibráhim Khán.

The word *divya* in Sanscrit signifies the same with *paricshà* or *parikhyà* in *Bháhshà*, *kálam* in Arabic, and *saucand* in Persian; that is, an oath, or the form of invoking the Supreme Being to attest the truth of an allegation; but it is generally understood to mean the trial by Ordeal, or the form of appealing to the immediate interpolation of the Divine Power.

Now this trial may be conducted in nine ways: first, by the balance; secondly, by fire; thirdly, by water; fourthly, by poison; fifthly, by the *Cólha*, or water in which an idol has been washed; sixthly, by rice; seventhly, by boiling oil; eighthly, by red-hot iron; ninthly, by images.

I. Ordeal by the balance is thus performed. The beam having been previously adjusted, the cord fixed, and both scales made perfectly even, the person accused and a Pandit fast a whole day; then, after the accused has been bathed in sacred water, the *hóma*, or oblation, presented to fire, and the deities worshipped, he is carefully weighed; and, when he is taken out of the scale, the Pandits prostrate themselves before it, pronounce a certain *mentra* or incantation, agreeably to the *Sástras*, and, having written the substance of the accusation on a piece of paper, bind it on his head. Six minutes after, they place him again in the scale;

and, if he weigh more than before, he is held guilty; if less, innocent; if exactly the same, he must be weighed a third time; when, as it is written in the *Mitácsherá*, there will certainly be a difference in his weight. Should the balance though well fixed, break down, this would be considered as a proof of his guilt.

II. For the fire-ordeal an excavation, nine hands long, two spans broad, and one span deep, is made in the ground, and filled with a fire of pippal wood: into this the person accused must walk bare-footed; and, if his foot be unhurt, they hold him blameless; if burned, guilty.

III. Water-ordeal is performed by causing the person accused to stand in a sufficient depth of water, either flowing or stagnant, to reach his navel; but care must be taken that no ravenous animal be in it, and that it be not moved by much air: a *Bráhma*n is then directed to go into the water, holding a staff in his hand; and a soldier shoots three arrows on dry ground from a bow of cane: a man is next dispatched to bring the arrow which has been shot farthest; and after he has taken it up, another is ordered to run from the edge of the water; at which instant the person accused is told to grasp the foot or the staff of the *Bráhma*n, who stands near him in the water, and immediately to dive into it. He must remain under water till the two men who went to fetch the arrows are returned; for, if he raise his head or body above the surface before the arrows are brought back, his guilt is considered as fully proved. In the villages near Banáres, it is the practice for the person who is to be tried by this kind of Ordeal to stand in water up to his navel, and then, holding

holding the foot of a Bráhma, to dive under it as long as a man can walk fifty spaces very gently; if, before the man has walked thus far, the accused rise above the water, he is condemned; if not, acquitted.

IV. There are two sorts of trial by poison. First, the Pandits having performed their hōma, and the person accused his ablution, two reitti's and a half, or seven barley-corns, of viśhanagá, a poisonous root, or of sanc'hya, that is, white arsenic, are mixed in eight māśas, or sixty-four reitti's, of clarified butter, which the accused must eat from the hand of a Bráhma: if the poison produce no visible effect, he is absolved; otherwise, condemned. Secondly, the hooded snake, called nága, is thrown into a deep earthen pot, into which is dropped a ring, a seal, or a coin: this the person accused is ordered to take out with his hand; and, if the serpent bite him, he is pronounced guilty; if not, innocent.

V. Trial by the Cólha is as follows: the accused is made to drink three draughts of the water, in which the images of the Sun, of Dévi, and other deities, have been washed for that purpose; and if, within fourteen days, he has any sickness or indisposition, his crime is considered as proved.

VI. When several persons are suspected of theft, some dry rice is weighed with the sacred stone called sálcram; or certain slócas are read over it; after which the suspected persons are severally ordered to chew a quantity of it: as soon as they have chewed it, they are to throw it on some leaves of pippal, or, if none be at hand, on some b'húja patra, or bark of a tree from Népal or Cashmír. The man from whose mouth the rice comes dry or stained with blood, is holden guilty; the rest are acquitted.

VII. The ordeal by hot oil is very simple: when it is heated sufficiently, the accused thrusts his hand into it; and if he be not burned, is held innocent.

VIII. In the same manner they make an iron ball, or the head of a lance, red-hot, and place it in the hands of the person accused; who, if it burn him not, is judged guiltless.

IX. To perform the ordeal by dharmárch, which is the name of the slóca appropriated to this mode of trial, either an image named Dharma, or the Genius of Justice, is made of silver, and another, called Adharma, of clay or iron, both of which are thrown into a large earthen jar, and the accused, having thrust his hand into it, is acquitted if he bring out the silver image, but condemned if he draw forth the iron: or, the figure of a deity is painted on white cloth, and another on black; the first of which they name dharma, and the second, adharma: these are severally rolled up in cow-dung, and thrown into a large jar without having ever been shewn to the accused; who must put his hand into the jar, and is acquitted or convicted, as he draws out the figure on white, or on black, cloth.

It is written in the comment on the Dharma Sástra, that each of the four principal casts has a sort of ordeal appropriated to it; that a Bráhma must be tried by the balance, a Cshatriya by fire, a Vaishya by water, and a Súdra by poison; but some have decided, that any ordeal, except that by poison may be performed by a Bráhma, and that a man of any cast may be tried by the balance: it has been determined, that a woman may have any trial except those by poison and by water.

Certain months and days also are limited in the Mitácsherá for the different species of ordeal; as Agrahan, Pausa, Mágh, P'hálgun, Sráwan, and B'hádr for that by fire; A'swin, Cártic, Jaisht, and A'shád, for that by water; Pausa, Mágh, and P'hálgun, for that by poison; and regularly there should be no water ordeal on the Ashtemi, or eighth, the

the Cheturdasi, or fourteenth day of the new or full moon, in the intercalary month, in the month of B'hadr, on Sanaishcher, or Saturday, and on Mangal, or Tuesday; but whenever the magistrate decides that there shall be an Ordeal, the regular appointment of months and days needs not be regarded.

The Mitâcsherâ contains also the following distinctions: in cases of theft or fraud to the amount of a hundred gold mohrs, the trial by poison is proper; if eighty mohrs be stolen, the suspected person may be tried by fire; if forty, by the balance; if from thirty to ten, by the image water; if two only by rice.

An inspired legislator named Câtâyâna, was of opinion, that though a theft or fraud could be proved by witnesses, the party accused might be tried by Ordeal: he says too, that where a thousand pana's are stolen, or fraudulently withheld, the proper trial is by poison; where seven hundred and fifty, by fire; where six hundred and sixty-six, and a fraction, by water; where five hundred, by the balance, where four hundred, by hot oil; where three hundred, by rice; where an hundred and fifty, by the Côsha; and where one hundred, by the dharmarch, or images of silver and iron.

ESSAY ON VARIOUS SPECIES OF VANITY.

EVERY human breast is tinctured with vanity. Self love is the reigning principle of man; and self love begets self partiality. However inattentive others may be to our accomplishments, we commonly are quick to discover them ourselves, and that too through a magnifying glass. An ambition to excel, and a fondness for appearing eminent, have undoubtedly a good influence in the world, by making individuals strive after those accomplishments, which attract the attention and command the applause of mankind in general. Were it not for these principles and passions—the principles of self love and an ambition for applause, verging on the confines of vanity, mankind would rise but a little above the low accomplishments of the brutal creation. But as every avenue for the introduction of good is an inroad for evil, and as every pleasure has its concomitant pain, so a laudable ambition is not only the source of virtue, but also of pride and folly. Few, if any, are wise enough, sufficiently to controul this passion of self love; and very few can disguise the tents of pride which are pitched and spread within their hearts. Every one is studying for

methods to gain applause and appear eminent in some way or other. The methods pursued are as different as the characters which pursue them. And unhappily for many, they frustrate their own designs by the very means which they injudiciously adopt for their accomplishment. But one general feature may be discovered in the pursuits of all, and that is a desire of being thought wise. And it is difficult to determine which is the most vain of his abilities, from the greatest philosopher to the most impenetrable numbskull. Some endeavour to discover their wisdom by writing, some by talking, and others, perhaps, more judiciously, by holding their tongue. I term the latter method the most judicious, because I consider it the safest, as folly itself, in this way, disguised by a grave look, a sapient air, and a close mouth, may often pass for wisdom. The world too, perhaps, in no instance are more candid than in this particular—for I have rarely known an instance where a bungling speaker has not been esteemed an excellent thinker—if he seldom or never communicates any thoughts, surely he must have an immense fund within. Some will

will endeavour to convince the world that they are wise by professing themselves to be fools—Thus it is storied of a former president of an American college; he laid it down to his pupils as a maxim, that the more any one in fact knew, the less opinion he would have of his own abilities; and that he must be a very wise man indeed who was sensible that he knew nothing. After advancing his rules and descanting floridly upon them, he concluded by observing, that he, in his own opinion, was not two removes from an idiot. Some pride themselves in a knowledge of the world, in polite accomplishments and genteel behaviour—while others, in opposition to these, and to show that they are too wise to attend to such trifles, discover as much pride by behaving like clowns. Some pride themselves in their liberality in things of a religious nature; they would wish to appear too enlightened and possessed of minds too great and independent to be tied up to any particular doctrines, rules or principles of Christianity, and affect to despise religious forms and ceremonies; while on the contrary extreme, others discover an equal degree of vain glory and self conceit in uncommon displays of sanctimonious looks, and unusual professions of piety and devotion. Some, to show their singularity in genius and transcendency in liberality of sentiment, will behave on days of public lamentation, fasting and prayer, with all the festivity suitable to times of rejoicing and mirth. Others again reproaching these as proud, vain, and impious fools, would convince the world of their superior wisdom by an over rigorous observance of the day. I have known it a rule among some of this last class of people, never to shave themselves after the reading of a proclamation for a public fast until the day appointed is past; and on the solemn day, in all the pride of ostentatious sanctity, to attend public worship with their

long beards, dirty apparel, and a leather apron—and, as it is aptly expressed in sacred record, “bowing down their heads like a bulrush, that they might appear unto men to fast.”

But in none of these pursuits are men more apt to frustrate their designs than by endeavouring to appear wise, and gain applause by the exercise of wit. Wit is a happy talent if regulated by judgement: but the man who is fond of exercising his wit commonly becomes a dupe to it. Injudicious, illiberal witticisms often captivate the attention as much as those of a different nature. Those who are ambitious of distinguishing themselves this way, will frequently therefore be severe, and thereby procure implacable enemies: they will too, most unavoidably run into little, low, trifling witticisms, and complete buffoonery, which, notwithstanding they may create laughter, will as surely beget contempt, and establish a character far different from the one pursued; for instead of being thought wise on this account they will be considered as possessing little, narrow, trifling minds, and will serve to illustrate by lively specimens the aptness of the poet's observation—“a wit's a feather”—Any circle of gentlemen or ladies, possessed of common sense, and having proper ideas of their own dignity, will feel themselves trifled with and insulted when their time and attention is engrossed by characters of this description—Any one who exercises witticisms of this kind in such a circle may depend upon their contempt—they will consider themselves as treated like children by his endeavouring to please them with a rattle—and if they laugh it will be more at him, than at what he says. Wits of this kind will be considered, not only as feathers—but as the musketoes of society—senseless and disgusting when they buzz, and painful and poisonous when they bite.

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REVIEW OF NEW PUBLICATIONS.

BRITISH PUBLICATIONS.

A PICTURESQUE TOUR THROUGH
PART OF EUROPE, ASIA, AND
AFRICA. *Small 4to.* 1793.

IN our Magazine, Vol. VII. we inserted a slight account of *Lettres sur divers Endroits*, par Bafani. This is a translation of that work, ornamented with plates, after designs by James Stuart, Elq. author of the *Antiquities of Athens*. These plates are, a view of the Naumachie at Palermo. A Doric Porico, at Athens. The Temple of the Winds, at Athens. The Temple of Jupiter Olympus; and the Ionic Temple on the Ilysius.

These prints are well executed, of the master from whose designs they are taken, his fame is too well established to need any comment. The translation of the work has merit, and clearly shews that much more pains has been taken with it, than is in general bestowed on modern quarto tours. The following extracts from it we think will please.

LETTER VIII.

Salonica, June 3, 1788.

Surrounded by the enchantments of fable, we traversed the Egean sea, with varied emotions of pleasure, rapture, and astonishment at every object we beheld. Every island and rock, even the sky, and the sea itself, are interesting to the classical observer. Hence the world has been peopled with gods, heroes, legislators, poets, orators, philosophers, and artists; and with women too, whose beauty gave animation to the marble under the hands of Phidias and Praxiteles: and when we reflect that nothing more remains of them but their ashes, who can repress the heaving sigh?

We are now coasting along Ionia. The country of Homer presents itself to view, and attracts our whole attention. On the shore are handsome buildings, and the flags of various nations are seen flying in the port. A forest of cypresses, which commands the town, gives a melancholy, yet majestic air to the whole country. These houses, which are of wood, recall to my recollection the capital of the kingdom of

Vol. XI.

Cræsus, which was built of reeds. The dread of the plague obliges us to leave this place: it now rages with great fury.

Calm, and the approach of night, obliged us to anchor at Lesbos in the harbour of Metelin, which stands on the ruins of the ancient Mitylene, the very port in which the Athenians triumphed over the Spartans. Cruel Sappho, unhappy Alceus was not unworthy of thy love! but Phaon's obduracy well revenged his wrongs. We hear a frightful howling—it proceeds from the terrified Turks; who, not knowing our vessel, are making fires on the castle to give an alarm, which they further endeavour to spread by their cries.

The sky is serene; and now that the greater part of mankind, forgetful of their cares, are wrapped in sleep, these wretches are kept awake by their fears; while we remain upon deck, continuing our conversation on this island, which has still charms for us. It was formerly renowned for its fertility, the beauty of its women, the excellence of its wines, especially those of Methymne, and the skill of its musicians; the celebrated Arion being a native of this place, as well as Terpander, who put the seven first strings to the lyre. The number of towns in this island was seven, Mitylene, Methymne, Troas, Antilla, Pyrra, Arisba, and Erelos the birth-place of Theophrastus, who made this memorable speech to his disciples, on his death-bed: "Life is delusive; it promises us great pleasure in the possession of glory; but scarcely have we begun to live, when we are called to die. No passion is often more fruitless than a love of fame. Nevertheless, my disciples, be contented: if you feel little value on the esteem of men, you will save yourselves much labour; if your courage does not sink under it, glory may happen to be your recompence. Remember only that there are many useless things in life, and few that lead to a sure end."

We dwelt too with pleasure on the idea of being now in the port of a city formerly so remarkable for its magnificent buildings, and whose theatre furnished Pompey the Great with a model for the one he built at Rome, and which contained upwards of 40,000 persons; where Epicurus, and Aristotle taught for some time, and in which Marcellus passed his days in philosophical retirement after the battle of Pharsalia. This town gave birth to Alceus, the tenth muse, whose famous ode we have solemnly recited. The historian Hellanicus was

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born

born here; as was Pittacus, one of the seven sages, who became the tyrant of his country in order to restore liberty to it.

The rising sun at length gratified our impatience to behold the island. It is pretty well cultivated, the soil and climate being very favourable to the production of wine, olives, corn, and figs. A nearer view of the mosques and houses strangely deranged our last night's illusions. The Turks soon recovered from their terror; but we did not go on shore, on account of the plague, which drove us hence, as it did from Smyrna. This island is to the east of Asia Minor, and is a hundred and fifty miles in circumference. Black marble was formerly procured from its quarries.

We cast anchor at Tenedos, *statio malisida carinis*, opposite to the kingdom of Priam. In the numerous summits, the lofty pines, the water and the woods of mount Ida, we beheld the original of that picture which the immortal Homer drew three thousand years ago. Troy is no more; but this famous city, with the fleet and army of confederated Greece, still exist in the pages of Homer and Virgil. There are here some magnificent ruins in marble, which, as we were informed, are the wrecks of a gymnasium of the second Troy, one of the eighteen cities which bore the name of Alexander. These ruins are the more venerable, by being embosomed in consecrated groves, and situated in the middle of a plain watered by the Simois, which is afterwards lost under the summit of mount Ida. The like scourge which hindered us from landing at Smyrna and Lesbos, prevented us from going ashore here. We wished much to tread that earth which has been drenched with the blood of so many heroes; but we were obliged to have patience.

The island of Tenedos, rendered immortal by the retreat of the Grecian fleet, still retains its former name, and continues to be inhabited by Greeks, who carefully cultivated its soil. The mulcadine grapes of this island are excellent, and much sought after throughout the Levant. The village, as it appeared from our vessel, is built on ancient ruins, and contains nothing remarkable. It is one of the islands reduced by the Persians in a very extraordinary manner, if we can credit Herodotus, the father of history, who tells us, that the inhabitants of Chio and Lesbos, two islands of considerable extent, together with those of Tenedos, were caught by the barbarians in a sort of net; for the latter, taking each other by the hand, and forming a line from north to south, drove the people before them. What seems most curious is, that the above historian, after having spoken of the conquest of the Ionian towns on the continent by the same fleet, very seriously adds, that the Persians did not attempt to

take the inhabitants of these in like manner; for this, says he, would have been impossible. Admitting the truth of the former account, nothing seems to have been easier.

In reflecting on the antiquity of the plague in the east, I cannot forget that which broke out at Troy during the siege. It first attacked the mules and dogs, and afterwards the soldiers. The poet ascribes it to divine wrath, as the Jewish psalmist does the plagues of Egypt, which produced the same effect. Some commentators affirm, that providence has disposed things in this manner, to give men time to see and to repent of their crimes. What a pity that those gentlemen themselves were not then living! the soldiers would have been warned to be on their guard, and the mules would have been spared.

We paid a visit to the island of Lemnos, called by the Greeks *Stalimene*, after the name of its ancient capital. It forms a square of almost twenty-one miles, and produces vines, corn, &c. which are cultivated by the Greeks. The *terra lemnia*, of which the ancients have said so much, is found here in great plenty. As it is so celebrated, I shall mention it also, in order to inform you that our pilot endeavoured to persuade us, that it is a remedy for all diseases; whence I conclude it is good for nothing. Not having landed, however, we did not see it. Homer says, that wine was carried from this island to the siege of Troy; and I am not surprised that Juno sent hither for the god of sleep. Hither poor Vulcan was precipitated from heaven; but the explanation of this fable is, that there are here a number of subterraneous fires. Pliny mentions a famous labyrinth in this island, of which he had seen the ruins; whilst that of Crete, says he, is no more. The hundred and fifty columns of the building, manufactured with a lapidary's wheel, were suspended from a peculiar machine, and might be turned by a child. We staid here an hour, and afterwards continued our journey.

We next beheld Strymon and Stagira. Happy country! thy Aristotle will enjoy a fame as lasting as that of his pupil Alexander.

Why does mount Athos hide his head in the clouds? I have discovered the reason; to conceal the blushes excited by surrounding ignorance and superstition, which seem to have taken up their residence in the four-cornered convents of the Caloyers. These are monks (lazy drones) of the order of St. Basil, who do very little honour to their founder. They amount to six hundred in number; and the convents have artillery to defend them against banditti. It is said, that they are in possession of some very ancient and rare manuscripts; and that they do not read them, which I can easily credit. Herodotus tells us, that Xerxes pierced the isthmus of this promontory.

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We had now in view Olympus, who separated Macedonia from Thessaly, the valley of which, anciently called Tempe, still retains the same name, and also Ossa and Pelion. This view like many others which have delighted us, would throw a poet into ecstacy; for we, who are not inspired by the muses, cannot refrain from admiration. Some of us are even become poets; and who that breathes this air, in which the muses were nursed, and which kindled the fire of the greatest geniuses of Greece, can help catching a portion of enthusiastic ardour?

We passed from the gulf Syngiticus to that of Thermaicus, and anchored in the bay of Thermes, Thessalonica or Salonica, in the country of the Myrmidons.

LETTER IX.

Salonica, June 15, 1788.

Thank God, the plague is not here!—the Turks being now in their holy month, the Romazan, which is their Lent, the minarets of above forty mosques present magnificent illuminations every night. As Mahomet received the Koran from heaven in the moon Ramazan, he consecrated it to fasting, from which it derives its name. This Lent is far more rigid than that of the Roman Catholics; the Turks not being allowed to eat any thing all the day, and still less to drink, or to smoke. Those therefore who have nothing to do, go to sleep, to avoid languor; or gravely lounge on the sofa of a shop, and kill time by continually turning the beads of a rosary, and looking at the passengers. Immediately after sun-set, the muzzins, or cries of the mosques, gave notice that it is time for Mussulmen to dine, but their impatience generally anticipates this warning. They then set about their prayers and ablutions with all possible dispatch, that they may the sooner enjoy their pipe and coffee.

I must not forget to tell you, that the minarets are towers built in the form of spires, gradually diminishing upwards, with a galley at about one third of their height, and terminating in a point, over which is placed a golden cross. The criers, entering this gallery through a door which opens eastwards towards Mecca, put their hands on their ears as if they were going to stop them, and, first turning round towards the four cardinal points, repeat these words in a tone as if they were chanting: "God is great—God is God—there is but one God, and Mahomet is his prophet. Come to good works, hasten to prayers, &c." This notice they repeat five times a day. On these occasions many repair to the mosques; but the greater number pray in their own houses, or wherever they may then happen to be.

I dined to day with a Turk. The gates were shut a little before sun-set; and I

was waiting at the port for our boat to take me on board. The surgeon of the ship was with me; and as we knew not what to do with ourselves, we went into a Turkish coffeehouse on the beach, and were extremely happy to find nobody in it but the master. The muezzins having at this time begun to call the people to prayers, the coffeehouse-keeper instantly betook himself to a neighbouring fountain, knelt down, raised his eyes towards heaven, then turned them downwards to the earth, which he appeared to kiss; and began to wash his hands, feet, arms, head, neck, ears, nose and nostrils with a surprising air of gravity and devotion. Having finished his prayers and ablutions, he spread out a mat before the door of the coffeehouse, and placing upon it a large dish of tinned copper, two feet in diameter, and containing five or six different sorts of meat, he and his servant sat down together cross-legged to partake of a repast. As we looked at him from motives of curiosity, he thought the cravings of hunger were felt as strongly at our stomach as at his own, and invited us by signs to dinner with him, adding, in Italian, *Mangiare, mangiare*. This invitation, an act of hospitality in which the Turks are never deficient, we readily accepted. The dishes consisted of mutton steaks, and forced-meat balls filled with spices, which the Turk seemed greatly to prize, for he observed to me that it was *bons*: there were likewise fish, and pilaw, which consists of dry rice boiled with mutton fat. We ate with our fingers, for in general the Turks use neither forks nor spoons. With respect to the pilaw, we were obliged to give that up, not liking it so well, nor being able to manage it so dexterously as our companions, who swallowed it after having first made it into balls with their fingers. Their bread is a sort of cake pretty well tasted: the Turks use no other, or at least give the preference to this above every other kind. As it is not customary here to drink during meals, the two Mussulmen got up to go to perform ablution, and to drink at the fountain; and we went on board our vessel.

You know that idiots make their fortunes in Mahomedan countries, or at least live very much at their ease, without being obliged to work for their bread. In one corner of the coffeehouse was a negro woman sitting upon a mat, naked, or at least nearly so; she was very old and frightfully ugly, but of this she was not sensible: she swallowed every thing offered to her, even tobacco, which shewed that she had really lost that reason which the gods, says an ancient, gave us in a fit of anger. She had no cares, however, and but few wants, which were even anticipated by the humanity of her protectors. She had been supported by the piety of true believers ever

since she was ten years of age. I saw like-wise a madman amusing himself with caning the Janissaries in the street. This respect of the Musselmén for maniacs often extends even to adoration. On this occasion I shall relate to you a story from the *Bibliothèque Orientale* of Herbelot.—A caliph of Bagdad, having heard that there was a madman who pretended to be the Deity, ordered him to be brought before him, to examine whether he was really insane or an impostor. For this purpose he thus addressed him: a few days ago a man was brought before me, charged with counterfeiting insanity, and wishing to pass as an envoy from heaven; I committed him to prison; and the consequence was, that he was tried, and condemned to lose his head. The fool immediately replied: you acted as one of my good and faithful servants: your conduct is to me highly agreeable; for I did not bestow the gift of prophecy on that wretch, nor did he receive any mission from me. On hearing this, the caliph was almost ready to fall down on his knees and adore him, for the Turks believe that such people are inspired by the spirit of God. This idea may lay claim to the sanction of antiquity, and is to be met with, at least to a certain degree, even in polished societies, as well as among savage tribes. Does this arise from an idea that the loss of reason is to be accounted a happiness reserved alone for the favourites of heaven? or do the Turks think that these people resemble those gods, who, according to the Pagan mythology, were not remarkable for their wisdom?

THE PRIVATE LIFE OF THE LATE
BENJAMIN FRANKLIN, LL.D.
*late Plenipotentiary from the United
States of America to France. Originally
written by Himself.*

The life of that truly great philosopher and politician, Dr. Benjamin Franklin, has long been a desideratum in the literary world. The former part of this work is said to have been originally written by Dr. Franklin himself in English; from that work, translated into French and published at Paris; and from the Paris edition again translated into English, and now presented to the public.

This first part, said to be written by the doctor himself, appears to us to bear strong internal marks of authenticity. The latter part, which is added by the French editor, is

compiled from the works of Brissot, Condorcet, Rochefoucault, &c. and from the eulogium of M. Faucher. Of the latter part we shall say little, being only inserted to eke out the life; but the former contains much useful and entertaining matter. The doctor gives the following reason for undertaking this account of his life.

My dear son,

I have lately amused myself with collecting some little anecdotes concerning our family. You must remember the enquiries that I made among such of my relations as remained alive, when you were with me in England, as well as the journey I undertook for that purpose. As I conceive that it must be agreeable to you, to be acquainted with all the circumstances of my life and origin, many particulars of which are at present unknown to you, I now mean to commit them to paper for your information. It shall be the occupation of a week's uninterrupted leisure, which I promise myself in my present rural retirement. Besides, there are other powerful motives, which impel me to this undertaking. From amidst the poverty and obscurity in which I was born, and in which I passed my early years, I have raised myself to a situation of opulence, and to some share of celebrity in the world. An uninterrupted series of good fortune has accompanied me, even to an advanced period of life; my posterity will therefore perhaps be gratified in learning the means which I have employed, and which, thanks to the assistance of Providence, have so well succeeded with me. They may also derive some useful hints from my experience, should they ever find themselves in similar circumstances.

This good fortune, when I reflect seriously on it, which is frequently the case, has sometimes induced me to say, that if the offer were made to me, I would again engage to travel over the same course, from the beginning to the end. I should only desire the privilege of an author in a second edition, to correct some of the errors of the first. I should likewise wish, were it in my power, to alter some particular incidents and events of my life, for more favourable ones. However, if this condition were refused me, I should nevertheless consent to begin again. But since to repeat life is impossible, that which in my opinion most nearly resembles it, is to recall all its particular circumstances, and to render the remembrance of them the more durable, by committing them to writing. In employing myself thus, I shall yield to the inclination so pleasing to old men, to talk of themselves and their own actions; and I shall indulge it without being burdensome to those, who, from respect to my

age, might think themselves obliged to listen to me, as it will be always in their option either to read or not, as they please. In truth, I may as well confess (as nobody would believe me if I should deny it), that perhaps I may in this gratify my self-love. I hardly ever heard any person pronounce this preparatory phrase, "I may say it without flattering my vanity, &c." without its being immediately followed by some strongly marked stroke, characteristic of that very vanity which they seemed desirous to deprecate.

The generality of men detest this foible in others, however large a portion of it they themselves may possess. For my own part, I pardon it wherever I find it, persuaded that it is advantageous to the individual whom it influences, as well as to all those who come within its sphere of action. Consequently it would, in many cases, be by no means absurd, that a man should consider his vanity among the comforts of his life, and give thanks to Providence that he is endowed with it.

And in this place let me acknowledge in all humility, that to Divine Providence I attribute the happiness I have hitherto enjoyed. It alone has presented to my mind all the means that I have made use of, and has influenced their success. My belief in this respect induces me to hope, although I ought by no means to depend upon it, that the divine goodness will be continued towards me, either in prolonging my good fortune to the termination of my life, or in granting me strength to support any unfortunate reverse which may happen to me, as it has to so many others. My future fate is known to Him alone, who holds our destiny in his hands, and who can convert our very afflictions into the sources of our greatest happiness.

One of my uncles, desirous like myself of collecting anecdotes relative to our family, gave me some notes, from which I have extracted several circumstances concerning our ancestors. From these I learn that they lived in the village of Eaton, in Northamptonshire, on a freehold of about thirty acres, during at least three hundred years. My uncle could not discover how long they had resided there prior to that period. It is probable they had continued ever since the time when, in imitation of their fellow citizens all over the kingdom, who then began to assume particular names, they took that of Franklin, which previously denominated a peculiar class of people.

This inconsiderable property would not have sufficed for their subsistence, had it not been for the occupation of a blacksmith, which continued in the family down to my time, the eldest son being always brought up to that trade; a custom which

both my uncle and my father followed with respect to their eldest sons.

Among the enquiries I made at Eaton, I found no account of their births, marriages, or deaths, prior to the year 1555, as the parish-register extends no farther back than that period. I learned from it, however, that I was the youngest son of the youngest son for five generations. My grandfather, Thomas, who was born in the year 1558, lived at Eaton till he was too old to continue his business, and then retired to Banbury, in Oxfordshire, to the house of his son John, a dyer, to whom my father was apprentice. There my grandfather died and was buried; we saw his tomb-stone in 1758. His eldest son, Thomas, lived in the family house at Eaton, and left it, together with the landed property, to his only daughter, who agreed with her husband, Mr. Fisher, of Wellingborough, to sell the whole to Mr. Ested, the present proprietor.

My grandfather had four sons, who lived to be men, namely, Thomas, John, Benjamin, and Josias. I shall mention to you such circumstances relative to them, as my memory furnishes me with, not having my papers at hand, in which you will find more particulars, provided they have not been lost during my absence.

Thomas had learned the business of a blacksmith with my grandfather; but having some natural genius, he improved himself by study, in consequence of the advice of — Palmer, Esq. who was at that time the principal man in the parish, and who encouraged all my uncles in the acquisition of knowledge. Thomas thus enabled himself to transact the business of a steward. He soon became a man of some little consequence, and was one of the principal projectors of all the public enterprises, for the benefit of the county and town of Northampton, as well as for the good of his own village. After having been a good deal noticed and protected by Lord Halifax, he died on the 6th of January, 1692, exactly four years before I was born. Could I remember the particulars of his life and character, as related to me by some old people in the village, you would be surprised at the analogy of many parts of them with mine: "Had 'he died,' you would say, 'four years 'later, one would have supposed that a 'transmigration had actually taken place.'"

John, I believe, was brought up a dyer of woollens.

Benjamin served an apprenticeship in London to a silk dyer; he was an industrious man. I remember him well, for while I was yet a child he came to join my father in Boston, and lived some time in our house. A particular friendship subsisted between them, and I was his namesake; he lived to a very advanced age. He

left

left two manuscript volumes in quarto, of poetry, of his own composition, consisting of little fugitive pieces addressed to his friends; he had formed to himself a system of short hand, which he taught me, but never practised it, it has long since slipped from my memory. He was a pious man, and attended the sermons of our best preachers, which he delighted in taking down in the expeditious mode adopted, if not invented by him, and of these he had collected several volumes. He was also fond of politics, too much so perhaps for his situation. I lately met in London with a collection he had made of all the principal political pamphlets, from the year 1641 to 1717. Some part of the series is manifestly wanting, but there still remained eight volumes in folio, and twenty-four in quarto and octavo. This collection had fallen into the hands of a dealer in old books, who knew me, by having been a customer, and brought it to me. My uncle apparently had left it with him, when he went to America, fifty years ago. I found many notes written on the margin with his own hand. His grandson, Samuel Franklin, still lives at Boston.

Our humble family at an humble period embraced the principles of the reformed religion. Our forefathers remained faithfully attached to it during the reign of Mary, and were in danger of being harassed on account of their zeal against popery. They were in possession of an English version of the Bible: in order to conceal and preserve it in safety, they be thought themselves of fastening it with strings, in an open position, to the inside of the cover of a night-stool. When my great grandfather was desirous of reading it to the family, he reversed the cover upon his knees, and turned over the leaves, without unloosing the cords which fastened it. One of the children always remained at the door to give notice if he saw the apparitor approaching; this was an officer of the spiritual-court. On the least alarm, the cover of the night-stool was instantly restored to its proper place, and the Bible remained concealed underneath it as usual. This anecdote I had from my uncle Benjamin.

The whole family continued attached to the church of England, till towards the conclusion of the reign of Charles the Second; an era when some of the ministers who had been displaced as non-conformists, having established conventicles in Northamptonshire, Benjamin and Josias joined them, never again to separate. The rest of the family continued in the episcopal church.

Josias, my father, married early. He carried his wife and three children to New-England, about the year 1662. The conventicles being at that time under the pro-

scription of the law, and their meetings frequently disturbed, some considerable people of his acquaintance resolved to go to America, in hopes of enjoying the quiet exercise of their religion; and he determined to accompany them.

My father had four more children by the same wife in America, and ten by a second marriage; in all seventeen. I remember to have seen thirteen of them at table together, all of whom grew up and married. I was the youngest son, and the youngest of all the children, excepting two daughters.

I was born at Boston, in New-England. My mother, my father's second wife, was Abias Folger, the daughter of Peter Folger, one of the first settlers in New-England, whom Cotton Mather mentions in his ecclesiastical history of that province, as a "pious and learned Englishman, if I remember his expression properly. I have heard that he composed several little pieces, though one only was printed. I saw it many years ago; it was written in 1675, in familiar verse, according to the taste of the times and the country. It is addressed to the then governors, and requests liberty of conscience for the Anabaptists, the Quakers, and other sectaries, who had recently been persecuted. He attributes the war with the natives, and other calamities which at that time afflicted the country, to this persecution, considering them as so many judgments of God, for the punishment of this odious crime. He also exhorts the government to abrogate laws so inimical to charity. This appeared to me to be written with a certain degree of masculine liberty, and agreeable simplicity.

Of his eagerness to acquire literary reputation he says—

My brother resolved, in 1720 or 1721, to set up a newspaper; it was the second that had been printed in America, and was entitled, "The New-England Courant;" the only one that ever appeared before, was the "Boston News-Letter." I recollect very well, that some of his friends wished to dissuade him from this enterprise, representing it as a scheme that in all human probability would prove unsuccessful, because, according to them, a single newspaper was sufficient for all America. Notwithstanding this, there are now (in 1771) no less than twenty-five.

He, however, carried his project into execution, and I was employed in distributing the papers among his customers, after having assisted in printing and working them off.

There were a few ingenious men of my brother's acquaintance, who amused themselves by writing little essays for his paper, and this circumstance not only added to the credit, but augmented the sale of it. These gentlemen

gentlemen often called upon us; I listened to their conversation with great eagerness, and heard them exult at the good reception which their writings received from the public. I was tempted to aspire to the same kind of reputation; but as I was still a boy, I naturally enough concluded that my brother would not infer any thing of which he knew me to be the author. I resolved therefore to disguise my handwriting, and having drawn up an anonymous speculation, I put it that very night under the printing-house door. It was found next morning, and immediately communicated to the little literary club; they read it in my own hearing, and I enjoyed the exquisite satisfaction of knowing that it had obtained their approbation, and that among their various conjectures concerning the author, they did not indicate a single person who did not enjoy a great reputation for genius and abilities in the province. At present I am inclined to suppose that I was extremely lucky in my judges, and that they were not so excellent as I believed them to be. Encouraged, however, by their applause, I wrote and sent to the press in the same manner, several other papers of my composition, all of which were also approved of, and I preserved my secret until my little stock of ideas was completely exhausted.

My brother from that moment began to have a little more respect for me; but he still looked upon himself as my master, continued to treat me as an apprentice, and insisted on receiving the same services from me as if I had been an utter stranger. I, on the other hand, imagined that he required too much from me in many cases, and thought myself intitled to more indulgence on the part of a brother. Our disputes were often referred to my father, and I am inclined to think that the other was either for the most part in the wrong, or that I was the better advocate of the two; for judgment was commonly declared in my favour: but my brother, who was choleric, still continued to strike me, a circumstance which I took in great dudgeon.

I have been often since induced to think, that this harsh and tyrannical treatment, contributed not a little to imprint in my mind, that aversion for arbitrary power which I have retained during the remainder of my life.

His first arrival at Philadelphia, where he afterwards made so conspicuous a figure, has some circumstances in it which afford ample matter for reflection.

When I arrived at Philadelphia, I was in my working dress, my best cloaths being in my trunk, which was to come round

from New-York, by sea. I was besides very dirty, in consequence of being so long in the boat; my pockets too were crammed with shirts and stockings, and I am sure that I must have made a very strange figure.

To add to my mortification, I did not know a single person in the town, and was even ignorant where I could find a lodging. I was extremely fatigued on account of having rowed during the whole night; I was also very hungry, and all the money I had in the world, consisted of a single dollar, and about a shilling in half-pence, which I gave to the boatmen. They refused it at first, because I had helped them; but I insisted on their accepting it. A man is sometimes more generous when he has but little money, than when he has a great deal: the reason of this perhaps is, that on such an occasion he is desirous of concealing his poverty.

I proceeded towards the end of the street, examining both sides of it at the same time, with the utmost attention, until I arrived at Market-street, where I met a boy carrying some bread in his hand. I had often made an entire meal of dry bread. I asked him where he had purchased it, and went straight to the baker's, which he pointed out with his finger. I instantly called for two or three biscuits, thinking to find some of the same species we had at Bolton; but I was informed that none of that kind was to be found at Philadelphia. I then asked for a three-penny loaf, but I was told that they had not any at that price. Being entirely ignorant of the different prices and kinds of bread made in this part of the country, I desired them to give me three-pence worth of bread, of whatever sort they pleased. On this I got three large loaves; I was surprised at receiving so many, but took them nevertheless, and having no empty room in my pockets, I continued my walk, with a loaf under each arm; as to the other, I held it in my hand while I ate it. In this manner I passed along Market-street, arrived at Fourth-street, and paraded before the house of Mr. Read, the father of the young woman who was afterwards my wife. She happened at that very moment to be at the door, and had good reason to think that I made a very fantastical appearance.

After this I turned the corner into Chestnut-street, eating my bread all the way, and having thus made a circuit, I found myself once more upon the quay in Market-street, within a few yards of the boat in which I had arrived. I descended a few steps, in order to drink some of the water of the river, and finding myself entirely satisfied with my first loaf, I bestowed the other two on a woman, who, with her son, had been my companions on our excursion by water.

Being now refreshed, I again wandered along the street. It was then filled with a number of persons, all of whom were very neatly dressed, and walked after one another, in a decent and orderly manner, always keeping the same side of the way. I immediately joined and accompanied them to the Quaker's meeting-house, near the market. I sat down as the others did, and after having spent some time in looking around me, without hearing a single word uttered, being exceedingly fatigued with my labour, and want of rest during the preceding night, I fell into a profound sleep. I remained in this situation until the assembly separated, when one of the assistants had the complaisance to awaken me. This consequently was the first house which I entered, or in which I slept, after my arrival in Philadelphia.

I now once more regained the street, and continued to walk along the side of the river; during my progress I attentively examined the faces of all the passengers whom I met, and at length fixed upon a young Quaker, whose physiognomy pleased me: I accordingly accosted and besought him to inform me where a stranger might be able to find a lodging? We were then exactly opposite the sign of the Three Sailors.—“They receive strangers there,” says he, pointing out the place at the same time with his finger, “but the house is not of good repute; if thou wilt accompany me, I will shew thee a better one.” He accordingly conducted me to the Crooked Billet in Water-street.

There I ordered a dinner, and while I was eating it, the people of the house put several questions to me. My youth and appearance led them to suppose that I was a fugitive. After dinner my inclination to sleep returned again; a bed was accordingly prepared for me; I cast myself upon it, without undressing, and slept till six o'clock at night, when they awakened and called me to supper. After that I returned to bed at a very early hour, and slept without interruption, until the next morning.

After residing at Philadelphia some time, he embarked for England, and worked a considerable time in London. From whence he embarked again for Philadelphia, and settled there as a master printer. He tells us, that—

Scarcely had we got our types in order, and set up our press, when George Houlé, an acquaintance of mine, brought us a countryman, whom he had picked up in the streets, wandering about in search of a printer. Our money was at this time nearly exhausted, on account of the variety of little sums we had been under the ne-

cessity of expending, and the countryman's five shillings, which were the first profits of our partnership, came so a-propos, that I enjoyed more pleasure from the receipt of it, than from any sum I have ever gained since. The gratitude which I felt in my heart, for the friendly conduct of George Houlé upon this occasion, rendered me infinitely more ready than I should otherwise have been, to favour and encourage young men, in their first outset in life.

In every country there are a number of morose and cynical people, who are continually prognosticating the ruin of their neighbours. There was a person of this description, residing at that very time at Philadelphia. He was a man of a certain age, he possessed a considerable fortune; had an appearance of wisdom, and a very grave manner of speaking; his name was Samuel Mickle.

This man, whom I was entirely unacquainted with, stopped one day at my door, and asked me if I was the young man who had lately set up a new printing house; on my answering in the affirmative, he said that he was very sorry for me, because it was an hazardous enterprize, the expense of which was entirely thrown away, as Philadelphia was then actually in a state of decay, all the inhabitants having either shut up shop, or being on the point of doing so; he added, that he was certain, from his own knowledge, that every thing that might induce foolish people to think otherwise, such as new buildings, and the increased price paid for lodgings, were deceitful signs, which, in truth, only contributed to hasten our ruin; and he gave me such a detailed account, both of the existing misfortunes, and of such as were on the eve of taking place, that he left me almost entirely discouraged.

If I had actually known this man before my entrance into business, I should, beyond all doubt, never have attempted it.

He himself continued to live in this ruined place, and to declaim in the same manner, refusing for many years to purchase a house, because every thing was falling into decay; at length, however, I had the satisfaction to see him pay five times as much for one as if he had bought it when he first commenced his lamentations.

I ought to have observed, that in the course of the preceding autumn, I had collected a number of the best informed men of my acquaintance, in order to form a club, which we called the Junto, the intention of which institution was to improve our minds.

We met constantly every Friday evening. The laws, which I myself drew up, obliged every member in his turn, to propose one or more questions on some point of morality, politics, or natural philosophy, in order

order to be discussed by the company present; and also to read once every three months, an essay of his own composition, on any subject that struck his fancy.

Our debates were to be submitted to the regulation of a president, and were never to be excited but by the sincere desire of discovering the truth, without which the pleasure of disputation, or the vanity arising from victory, was to pass for nothing in our discussions. In short, in order to prevent bickerings and quarrels, all those expressions which might evince an obstinate, or head-strong opinion, and all direct contradictions, were prohibited under the penalty of little pecuniary fines.

On the whole, we find very many instructing and amusing anecdotes in this little work; and we anxiously look forward to the more complete life of this great man, now said to be preparing under the direction of his grandson.

ROMAN CONVERSATIONS. Vol. II.
8vo. 1793.

Of the Roman Conversations, the second volume has just been published. This, like the former, is composed of characters of the great men of Rome, and remarks on the history of the republic, and the early part of the empire. The Gracchi, Q. Cæcilius Metellus, Rutilius Rufus, Mutius Scævola, Sertorius, Cato, Scipio, Brutus, under the commonwealth, and Horace, Virgil, Germanicus, and Thraseas, under the emperors, form conspicuous characters, and the whole concludes with a chapter on *Suffering Virtue*.

In the conversations, much matter is inserted which by no means applies to the state either of ancient or modern Rome; of this we shall take no account than to observe, that we think the work would have been much better without it.

The character of Cicero is thus drawn.

It seems a considerable mark not only of goodness of heart, but also of real strength of understanding, and a very proper method for improving both these qualities, if, in the consideration of any great and exalted character, the student observes indeed its defects, yet dwells not too much on them,

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nor views them in the most unfavourable light; but candidly considers the whole character together, and then applies his attention more peculiarly to the study of those its parts, which are the most noble or beautiful.

The character of Cicero has, for many ages, drawn the attention and, generally speaking, the admiration of mankind.

In discoursing on such a character, let us be as silent as possible in relation to its imperfections; and, according to the generous scope and intention of these our Roman Conversations, endeavour to improve ourselves as much as we can, by diligently studying its real excellencies.

Let us consider, that though Cicero lived in one of the most corrupt ages that ever was known, yet he was totally free from any stain either of avarice or luxurious debauchery.

As to pride, which was the third great vice of those times, Cicero certainly had nothing of that cruel Roman pride which was the occasion of much misery to Rome, and to those nations which had any connection with her. Cicero was not proud of any actions which were vicious in themselves, or hurtful to other persons. He was not proud of riches or power. It must be indeed acknowledged, that he was vain, very vain, of the great abilities of mind which he really possessed, and of the great services which he had really performed for his country. This vanity is one of the universally acknowledged weaknesses in Tully's character. If he had been more humble and lowly in his own sight, he certainly would have been not only a much happier, but also a much better man: for humility as it is in itself a great virtue, so also is it the foundation of many others.

But humility was an excellence little known in the heathen world.

Let us then turn our thoughts to those virtues which may, with more probability, be expected in a heathen character.

In private life, (permit me on this head to refer you, my dear pupil to the beginning of the twelfth section in Dr. Middleton's history) Cicero was a kind and generous master; he was an excellent father; he was grateful to his benefactors; and sincerely zealous for his friends, whether they were in prosperity or in adversity. His works are full of these noble sentiments, and his life full of examples of them.

Cicero loved his country, even as Octavius owned; he laboured to support its ancient constitution and liberty. He sometimes shewed great intrepidity in resisting the attempts of its enemies: at other times it must be acknowledged, he seems to have been silenced and overawed. Perhaps this might be real weakness of mind. On the other hand, perhaps it may be said, that Tully might be of opinion that he was

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serving

-serving his country, by suspending sometimes all useless opposition to the irresistible power of the usurpers of the national authority. He might think, that it was more patriotic, as well as more prudent, to foment them by patience and submission; and by proper management to conduct them into such a train of thoughts and actions, as might produce something considerably beneficial to the public.

But however this may be, certainly the most fair method of passing judgement on the political character of Tully, is to examine how he behaved when he himself was in power.

It is indeed at those times, that the splendor of his character shines forth in its true lustre; at those times his appearance in the history of his country discloses itself with as much dignity, as attended the founder of this Roman empire, when (according to the description which you, my dear pupil, have often admired in Virgil) he discovered himself in the fullest majesty before the tribunals and senate of Carthage.

*Scindit se nubes & in æthera purgat apertum
Restitit Æneas, claræque in luce refultat.*

Let us consider his conduct while governor of Cilicia; we shall find in it much patriotism, much philanthropy. He had in his youth behaved very well, while Quæstor at Syracuse; but this Asiatic government produced a very considerable addition of honour to his character.

Cicero seems to have followed, in great measure, the glorious plan of government, which his master, Scævola, had observed in Asia Minor.

Cicero principally gave his attention to relieve the grievances of his province, by lightening that heavy load of debts, with which the avarice of his predecessors had incumbered it; and by remedying all the other evil consequences of their bad government. The Asiatics, who had joined with the former governors in oppression and plunder of their country, were by Cicero obliged to refund whatever they had thus extorted. Cicero protected the province also from all Roman oppressors; from some in particular who were of the highest rank in Rome, and otherwise greatly connected with himself. Nor was he less diligent in averting evils rising from other causes; he

alleviated the scarcity of provisions, which at that time afflicted Cilicia and Cyprus almost like a famine. He prepared with great spirit to defend the frontiers against the threatened and then most formidable invasion of the Parthians.

He permitted to the natives of his whole province, the use of their own laws. He was kind and affable at all times to all; indeed the spirit of every part of his government was, like that of every other part of his life, most mild and merciful, though at the same time very prudent and very active. Nor was he less remarkable for his noble disinterestedness. For as he supported the dignity of his office of proconsul liberally, not sumptuously, he had no temptation to fraud or rapine. He was able to refuse the immense perquisites, presents, and contributions, &c. with which his predecessors had disgraced their administration. Cicero accepted only the most just and moderate duties of his office; and even from those his lawful appointments he bestowed several thousand pounds to the relief of distressed particulars or communities in his government. At his departure he declined the acceptance of several then usual public honours: he declined also the great free gift, which was offered to him voluntarily by the province, and which is said on the whole to have amounted to upwards of two hundred and fifty thousand pounds sterling. You seem surprised, dear sir: but the generosity of Cicero in his government of Cilicia, was much greater in other articles, according to two extracts which I have made from Dr. Middleton's history: the sum mentioned in the second extract is so excessive, that I should even apprehend there must be some mistake in the calculation.

All the wealthier cities of this province used to pay to all their proconsuls large contributions for being exempt from furnishing winter quarters to the army: (Cyprus alone paid yearly on this single account two hundred talents, or about forty thousand pounds) but Cicero remitted this whole tax to them, which alone made a vast revenue.

In his province of Cilicia, he saved to the public a full million sterling, which all other governors had applied to their private use.

POLITICAL REGISTER.

TO judge with propriety of the affairs of France, it is necessary to keep in view the state of parties. On one side was that party, which their friends have thought proper to call *Free Republicans*. These consisted of men of the first abilities in

the Convention; such as Vergniaud, Buzot, Genfonné, Brissot, Barbaroux, Guadet, Bancal, &c. The opposing party was composed of Robespierre, Danton, Thuriot, Robert, Bazire, Billaud Varrennes, Danton, Desmoulins, and Talien;

to which may be added Marat, a man, who had risen to celebrity in France, by the same means Mr. W. did some time ago in England, merely by the infamy of those who opposed him. There was also a third party, who were neutral or undecided, whether because they disapproved of the conduct of both parties, or wished to make themselves useful by controuling them both, when led astray, is uncertain.

As the second party have gained the confidence of the people, by publishing some bold truths; and as they certainly had the merit of detecting the plan of the Conventionists, who meditated a counter-revolution, the people gave ear to all their accusations. The party of Brissot had shewn so much warmth in favour of the king, that their opponents immediately raised a cry that they were bribed to save him.

The Brissotines, as they were likewise called, had also, during the debates on the affair of the king, made complaints that they were in constant danger of assassination; but immediately after the execution of the king, one of the members of the National Assembly (Pelletier) and denominated of the mountain, was assassinated by one of the *ci-devant* body guards of the king. These circumstances combined, tended to strengthen the credit of the mountain in the eyes of the people, and to weaken that of their opponents. On the report of Pelletier's assassination, a public funeral was decreed him, at which all the members of the Constitution were to attend.

The enemies of France were now arming on all sides, and her internal foes were equally alert. This obliged the Convention to proceed with great vigour. On the 25th of January, Dubois Crancé presented the following report on the preparations necessary to support the war during the next campaign.

"He considered France, with relation to all the powers by which she is surrounded, the sovereigns of

which had shewn hostile dispositions, and the effects of which they must prevent, in opposing an equal force to those brought against them into the field.

"In the north, the war must be offensive; on that account it demands a great force. Last year, Germany united against France an army of 100,000 men, composed of Austrians, Prussians, Hessians, and emigrants. This army has been greatly diminished; but the contingent that the German circles are to furnish, will increase it this year, and will augment it to 180,000 men.

"England, neuter last year, will not be so next spring. The changes introduced into the system of the war, certainly favours an invasion of England—an invasion which has not hitherto been in contemplation.

"To the southward. The system of war must be defensive to France; Spain can only put 40,000 men on foot—Sardinia, about the same number. It will not be difficult to oppose to them an equal force."

He next considered the means of defence, after the plan of the committee of general safety. "The number of our troops will be 502,800 men; of whom 427,000 are infantry; 55,000 cavalry, and 20,000 artillery.

"Distribution of the army. This great force will be divided into eight armies—three in the north, three in the south, and two in the south-east. There will also be a reserve at Chalons; and an army of observation placed on the frontiers of France, opposite to England. The numbers of each shall be fixed in the following manner:

"From Dunkirk to the Meuse, 150,000 men; between the Meuse and the Sarre, 50,000 men; from Mayence to Belancon, 35,000 men; at Chalons, a reserve of 26,000 men; upon the borders of the Channel, 40,000 men; in the army of the Alps, 16,000 men; army of the Pyrenees, 16,000 men; the army of the Var, 40,000 men; the remainder

to be stationed according to the events of war."

The French continued to pass votes for uniting various parts of the Netherlands to their republic; in doing this, they have been accused of acting in a very unjustifiable manner, and this accusation seems in many respects well founded. But with respect to Liège, they seem to have acted with propriety, for out of 9700 votes, 9600 voted for the union.

The situation of affairs between France and England becoming critical, the National Assembly referred it to the consideration of the committee of general defence. On the 1st of February, M. Brissot, after an introductory speech, proposed to the Assembly to pass the following decree:—The National Convention having heard the report of its committee of general defence, on the conduct of the English government towards France.

Considering the king of England has ordered his ambassador to withdraw himself from France, * * *

and refused to acknowledge the provisional executive council, created by the legislative assembly.

That the cabinet of St. James's, at the same epoch, discontinued its correspondence with the ambassador of France, at London, on pretext of the suspension of the *ci-devant* king of the French.

That since the opening of the National Convention, it has refused to answer to the accustomed correspondence between the two states, as also to acknowledge the powers of that Convention.

That it has refused to acknowledge the ambassador of the French republic, although holding credentials from it.

That it has endeavoured to obstruct the different purchases of corn, arms, and other merchandise, made either by French citizens, or by the agents of the French republic.

That it has laid an embargo upon

divers vessels and boats laden with corn for France, whilst, contrary to the treaty of 1786, the exportation of corn was permitted to other countries.

That, in order more effectually to obstruct the commercial operations of the republic in England, it has, by means of an act of parliament, prohibited the circulation of assignats.

That, in violation of the 4th article of the treaty of 1786, it also has caused, in the course of the month of January last, an act to pass, by which, all French citizens, residing in or coming to England, are subjected to the most inquisitorial vexations, and dangerous formalities.

That, at the same time, and contrary to the tenor of the 1st article of the treaty of peace of 1783, it has granted protection and pecuniary succours to the emigrants, and even to the chiefs of those rebels who have borne arms against France; that it keeps with them a daily correspondence, and evidently directed against the French revolution; and that it also receives the chiefs of the rebels of the French West India colonies.

That in the same hostile spirit, and without provocation, and whilst all maritime powers were at peace with England, the cabinet of St. James's has given orders for a considerable armament by sea, as well as an augmentation of its land forces.

That, that armament was instituted at the very moment when the English minister persecuted with inveteracy those who supported, in England, the principles of the French revolution, and employed all possible means, both in and out of parliament, to cover the French republic with ignominy, and to draw upon it the execration both of England and of all Europe.

That the object of that armament, destined against France, has not even been dissembled in the parliament of England.

That although the provisional executive council has employed every necessary measure to preserve peace

peace and fraternity with the English nation, and has given no other answer to calumnies and violations of treaties, than remonstrances founded on principles of justice, and expressed with the dignity of freemen, the English minister has nevertheless persevered in his system of malevolence and hostility, continued his armaments, and sent a squadron to the Scheldt, to interrupt the operations of France in the Low Countries.

That on the news of the execution of Louis, he has carried his outrages against the French republic to such a pitch, as to order the ambassador of France to quit, within eight days, the territory of Great-Britain.

That the king of England, at that epocha, took an opportunity of appointing different generals to his land forces, as also to demand of the parliament of England a considerable addition to both his sea and land forces, and to give orders for the fitting out of gun-boats.

That the intelligence of the king of England with the enemies of France, and particularly with the Emperor and with Prussia, has been confirmed by a treaty concluded on with the former, in the month of January last.

That he, the king of England, has drawn into the same league, the Stadtholder of the United Provinces, who has in the course of the French revolution, and notwithstanding his professed neutrality, treated with contempt the agents of France, welcomed the emigrants, vexatiously treated the French patriots, interrupted their business, set at liberty, contrary to known custom, and to the requisition of the French ministry, the forgers of assignats; and that, lately, to concur with the hostile designs of the court of London, he has commanded an armament by sea, named an admiral, ordered the Dutch vessels to join the English squadron, opened a loan to supply the expences of the war, obstructed the exportations for France, whilst he favoured the sup-

ply of the Prussian and Austrian magazines; and lastly, considering that all these circumstances leave no longer a hope to the French republic of obtaining, by amicable negotiation, a redress for these injuries; and that all the acts of the British court, and of Holland, are acts of hostility, and equivalent to a declaration of war.

Same day, the following report on the state of the finances was made by M. Cambon. He said, that the resources of the republic were of two kinds, ordinary and extraordinary: the ordinary were the regular taxes, the amount of which, from January 1, 1792, to January 1, 1793, first, what are called the direct contribution, land, mobiliary, and licence tax, amounting to 141,212,497 livres: the same for the year 1792, the lists of which are not yet finished, amounting to 4,926,661 livres; arrears of the direct taxes of 1790; and the anterior years, amounting to 17,337,972; patriotic gifts, 41,832,745; the arrears due on the taxes 648 millions.

To acquit the extraordinary expences of the year 1792, an alienation, to the value of one milliard of national lands, would be necessary.

The expences of the year 1793, it is said, could not be calculated; to acquit them, a new creation of assignats would be necessary, for new taxes or further loans, were equally impracticable; that the assignats had a certain pledge for their acquittal in twelve years. He then produced an extract of a calculation from the account delivered in by the national treasury, the 26th of January last; it appeared by this, that the assignats already created amounted to 3,100,000,040 livres, that three milliards of this sum had been already spent, and that there now only remained for the public service, about 30,550,000.

That of those assignats 682 millions had been paid into the national treasury, and immediately burnt; that

that consequently there now remained in circulation 2,387,460.040 livres. As to the pledge or security on which these assignats were grounded, he referred the assembly to a statement of the national lands delivered in April 1792, by which it appeared that the value of them amounted to 2,445,638,237 livres. The amount of those sold, on the 1st day of November 1791, was 1,498,289,924. Since that time, more had been sold, to the amount of about 350 or 360 millions. Since that epoch, the legislature had decreed the sale of other lands, such as convents occupied by nuns, valued at 60 millions; bishops palaces, 15 millions; lands once belonging to the Order of Malta, valued at 400 millions; woods and forests, 200 millions; the interest due from the purchasers of national lands, 50 millions. Total 745 millions, which, added to the 2,445,638,237 already stated, made the whole of the value of the national lands already put up to sale, 3,170,638,337 the security for the already created assignats, which amounted to 3,100,000,040; thus the security is worth precisely 70,638,197 more than the debt with which it is incumbered. He then proposed a new creation of assignats, and for the payment of these he would state what was the new security the republic could offer.

1st. Woods and forests value 1200 millions.

2d. Lands which belonged to the civil list, 200 millions.

3d. Equity of redemption in such lands, already sold, 100 millions. Redemption of certain feudal rights supported by deeds, 50 millions. The church lands of those countries which you have enfranchised, and which agree to coalesce in your system; as the department of Mont Blanc, and the districts of Louvez and Vauluse, 30 millions.

Lastly. In the confiscation of the lands of the emigrants, in which they would find the following immense resource.

Roland, he said, had a list of emigrants to the number of 17,000; Cambon thought they now amounted to 40,000, and that the value of their personal property amounted to at least four milliard 800 millions (about 180 millions sterling) and that after payment of their debts, and the expences of the sale, there would remain to the state a clear profit of three milliards, and that that sum would be realised on them.

The last resource the financier pointed out, was grounded on the loyalty of such nations as they should enfranchise: they justly owed the French an indemnity for wars undertaken on their account. That they ought to sell the lands of their privileged orders, and pay the French with assignats upon them—the department of Mont Blanc had already done this, so had the Belgians, in spite of their clergy and nobility, for they had furnished 64 millions, in order to raise an army of 40,000 men.

Thus the whole and unincumbered pledge he could offer for a new creation of assignats, amounted, on their aggregate resources, to the enormous sum of four milliards, six hundred millions (about 165 millions sterling) on which security he proposed to create more assignats, to the amount of 800 millions. This being done, he stated the nation would have a clear unincumbered capital of three milliards, to combat the supporters of despotism. The creation of 800 millions of assignats was accordingly decreed.

Hostilities were immediately commenced against Holland; the forts of Herfenswart and St. Michael, on the border of the Meuse, were taken; Dumourier published a proclamation, inviting the Hollanders to join him, which was answered by the Dutch government. Breda was soon reduced, Gertruydenberg surrendered after a short siege; and the Dutch fort of Williamstadt, and the fortress of Maestricht, were besieged.

sieged. It became necessary for the allies to hasten their preparations. Eighteen hundred guards were embarked for Holland, under the command of the Duke of York; and the Prince of Cobourg, appointed to the command in chief of the allied forces, ordered a corps to advance to its relief.

The French cantonments on the Roer were immediately forced, the siege of Maestricht raised, and ge-

neral Valence found himself obliged to retreat from Aix-la-Chapelle.—This piece of success on the part of the confederates, was followed by others equally fatal to the cause of the French. Their generals found themselves under a necessity to evacuate Liege. Dumourier raised the siege of Williamstadt, and marched to join generals Valence and Miranda, who were retreating before a very superior force.

P O E T R Y.

SONNET TO TIME.

BY MRS. ROBINSON.

(Never before published.)

INSATIATE despot! whose resistless arm
Shatters the loftiest fabric from its base;
And tears from beauty ev'ry magic charm,
And robs proud nature of her loveliest grace!
Still art thou kind; for as thy pow'r prevails,
And age comes onward menacing decay;
As warmth expires, and numbing frost assails,
And life's faint lamp presents a quiv'ring ray;
'Tis thine to reconcile the tranquil breast,
To prove that sublunary joys are vain;
To turn from pomp, and all it's tinsel train,
And seek the silent paths of mental rest:
So, from the deadliest poison, chymic art
Extracts a healing balm, to tranquillise the heart.

TO LAURA.

"Let your heart be worthy of her, or let the offer of it never be made,"

ROUSSEAU.

HOW eager I've fought to attain
A sight of that nymph whom I love;
But often fond wishes are vain,
And happiness seldom we prove.

To meet thee, how oft do I stray,
By affection which prompts the desire;
Ah! can I refrain to obey,
When charming the nymph I admire!

While anxious I wander a street,
And fancy each semblance my fair,
Till nearer—no Laura I meet,
How pensive my bosom with care!

But should I this dear one espy,
I grudge not my labour or toil;
When charm'd with emotions of joy,
I'm happy—if blest'd with a smile.

EDWY.

ADDRESS TO THE EVENING STAR.

LUCID lamp of ray serene,
Fav'rite star of beauty's queen,
Splendid glory of the night,
Spreading through the gloom delight;
Common stars thy beams outshine,
More than argent Cynthia's thine;
Guide me through yon lonely glade,
To my fair, my lovely maid,
Where the jocund train advance,
Tripping in the sprightly dance;
Cynthia soon will leave the sky,
May thy beams her light supply!
I ne'er robb'd of lambs the fold,
Nor the traveller of gold:
Love's my crime—O lend thy ray,
Guide a lover on his way!
May the star of Venus prove
Friendly to the swains that love.

MARC ANTHONY.

THE DYING CHILD.

BY MR. HOLLAND.

BESIDE the cradle where his infant lies,
Behold the father! Mark his closing eyes;
His female friends, enanguish'd, fly the place,
As death's pale ensign opens o'er his face!
Hope hangs her head—her magic counsels o'er,
And resignation hails th' Elysian shore.
The quiv'ring lip—short sigh—and icy hand,
Pronounce the grisly tyrant's dread demand.
The cheeks no longer bloom—the roses fly,
And with their little master mount the sky!
The parting breath the father's lips receive,
'Tis all his dying charmer has to give—
Blest, balmy gift! to cheer his wounded soul,
That eyes thee soaring 'bove the starry pole.

-MAR.

MARRIED.

The Rev. William Sanders, of Barnston, Yorkshire, to Miss Kentish, South Lambeth.

The Rev. Charles Sutton, of St. John's College, Cambridge, to Mrs. Meadows, of Barnham, Suffolk.

Alexander Brodie, Esq. M. P. to Miss Wemyss, of Wemyss.

Sir Henry Croftly, to Miss Eliot, daughter of Samuel Eliot, Esq.

John Le Couteur, Esq. of the island of Jersey, to Miss Dumarelque.

Benjamin Henthaw, Esq. of Moorhall, Essex, to Miss Clinton, of Sawbridgeworth.

The Hon. Henry Willoughby, son of Lord Middleton, to Miss Jane Lawley, second daughter of the late Sir R. Lawley.

Charles Hope, Esq. advocate, to Lady Charlotte Hope, sister of the present Earl of Hopetown.

Robert Crauford, Esq. eldest son of Sir Hugh Crauford, to Miss Musket, of York.

The Right Hon. the Earl of Pomfret, to Miss Brown, of Pall Mall.

Sir Gilbert Heathcote, bart. to Miss Manners, of Pall Mall.

Thomas French, Esq. of Mitcham, to Miss Elizabeth Darell.

The Rev. — Guilford, of Botterford, to Miss Gurnell, of Norwell, in Northamptonshire.

The Rev. Thomas Taylor, of Bracon

[Remainder of Deaths in our next.]

Ash, in Norfolk, to Mrs. Watts, of Norwich.

The Earl of Breadalbane, to Miss Gavin, of Langton.

John F. H. Rawlins, Esq. of Stoke Courcy, in Somersetshire, to Miss Lemaire.

Paul Benfield, Esq. M. P. to Miss Swinburne.

DIED.

Michael Morris, Esq. surgeon of the royal artillery at Barbadoes.

At Barbadoes, aged 73, Zachariah Stephens, Esq.

Lady Ann Broughton, of Doddington Hall, Cheshire.

Aged 101, Mrs. Barker, of Morlake.

Archibald Menzies, Esq. surgeon of the 10th regiment of foot in Jamaica.

At Chelsea, Mrs. Elizabeth Barrow.

Henry Myres, Esq. an alderman of York.

The Lady of Sir James Sanderford, knight.

The Right Hon. the Countess of Hopetown.

At Kilsane, in Ireland, Gervis Parker Burke, Esq.

Mrs. Bacon, of Cony Hatch.

Dr. John Thomas, bishop of Rochester.

Mrs. Laverich, of Craven-street, Strand.

Lady Jane Matthew, wife of General Matthew.

At Hampton Palace, Baroness Schauh.

PRICES OF STOCKS.

| | Aug. 22. | Aug. 29. | Sept. 5. | Sept. 12. |
|--------------------------|----------|----------|----------|-----------|
| Bank Stock | 176½ | — | — | — |
| 3 per Cent. Consolidated | 76½ | 75½ | 74½ | 74½ |
| 4 per Cent. Consolidated | 93½ | 93½ | 92 | 92½ |
| 5 per Cent. Navy | 107½ | 107½ | 106½ | 106½ |
| Long Annuities | 22 5-16 | 22½ | 21½ | — |
| Short Annuities | 10½ | 10 5-16 | 10½ | — |
| India Stock | 207½ | 208 | 206 | 205½ |
| India Bonds | — | — | 9 pr. | 8 pr. |
| South Sea Stock | — | — | — | — |
| New Navy | 8½ dif. | 9½ dif. | 9½ dif. | 9½ dif. |
| Exchange Bills | — | — | — | 1 pr. |
| Lottery Tickets | 14 2 0 | — | 13 18 0 | 13 1 6 |

PRICES OF CORN AT THE CORN-MARKET.

| | August 26. | August 30. | Sept. 9. | Sept. 16. |
|--------------|--------------|--------------|--------------|--------------|
| Wheat | 38s. to 49s. | 36s. to 49s. | 38s. to 51s. | 36s. to 50s. |
| Barley | 26s. — 30s. | 27s. — 30s. | 30s. — 35s. | 28s. — 37s. |
| Rye | 26s. — 28s. | 28s. — 31s. | 28s. — 31s. | 28s. — 30s. |
| Oats | 18s. — 25s. | 18s. — 28s. | 20s. — 29s. | 20s. — 28s. |
| Pale Malt | 40s. — 44s. | 41s. — 44s. | 41s. — 45s. | 44s. — 46s. |
| Amber ditto | 41s. — 45s. | 42s. — 45s. | 42s. — 46s. | 42s. — 46s. |
| Peas | 38s. — 44s. | 38s. — 45s. | 39s. — 45s. | 36s. — 48s. |
| Beans | 34s. — 37s. | 36s. — 39s. | 35s. — 39s. | 36s. — 38s. |
| Tares | 34s. — 36s. | 30s. — 34s. | 30s. — 34s. | 30s. — 34s. |
| Fine Flour | 39s. — 40s. | 39s. — 40s. | 39s. — 40s. | 40s. — 40s. |
| Second ditto | 36s. — 37s. | 36s. — 37s. | 37s. — 37s. | 37s. — 37s. |
| Third ditto | 24s. — 28s. | 24s. — 29s. | 24s. — 29s. | 28s. — 32s. |

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Literary Magazine



ANNE ROBERT JAMES TURGOT.

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